CONTINUITY AND PROGRESSION WITHIN AND BETWEEN KEY STAGES 2 AND 3 IN GEOGRAPHY

by

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Abstract

This thesis is concerned with the ways in which curriculum continuity and progression of children's learning occurs in the geography curriculum both within and between Key Stages 2 and 3. It explores the current attempts to achieve continuity and progression within and between these two Key Stages as well as the extent of cross-phase liaison in four Local Education Authorities (LEAs) in the Midlands.

To set curriculum continuity and progression in context, a consideration of the geography being taught and delivered in primary and secondary schools is undertaken and the impact of pressures upon the Geography National Curriculum at Key Stages 2 and 3 are investigated.

To understand the present nature and status of geography in primary and secondary schools, the place of geography as a school subject both prior to and following the introduction of the Geography National Curriculum is examined. In addition, the degree of continuity and progression that has existed during these periods is evaluated, together with previous attempts at cross-phase liaison in geography.

The thesis concludes with an analysis of the ways in which continuity, progression and cross-phase liaison within and between Key Stages 2 and 3 might be enhanced in the future.

Synopsis

This thesis investigates to what extent curriculum continuity and progression is discernible within and between Key Stages 2 and 3 in geography in four Local Education Authorities (LEAs) in the Midlands that will be referred to in this thesis as Bridgewood, Charwell, Greendale, and Oakleigh to ensure anonymity for the LEAs concerned. The research methodology applied in this thesis is documented in Chapter 3.

The primary focus of this research is to consider how well primary and secondary schools plan for and execute continuity and progression in the design of their geography curriculum at Key Stage 2 and Key Stage 3 respectively, as well as investigating the extent to which curricular continuity and progression in pupils' learning in geography is facilitated as pupils transfer from the last year of primary school (Year 6 in the four LEAs under study) to the first year of secondary school (Year 7).

In researching continuity and progression within and between two distinct phases of geography education, it is necessary to establish the nature, status and place that geography holds in the primary and secondary school curriculum. This includes not only consideration of what is being taught, but how it is being delivered. In the case of primary school geography in particular, this includes assessing how curriculum pressures at Key Stage 2 have impacted upon the delivery of the subject. Through an analysis of this nature, a better understanding of the curriculum framework onto which continuity and progression has to be mapped is possible, and this allows a more complete picture to be

drawn of the extent to which continuity and progression exists within the geography curriculum at the present time.

Inevitably, to understand continuity and progression within and between Key Stages 2 and 3, as well as geography's current status and role in both the primary and secondary school curriculum, a historical perspective needs to be undertaken. This is reported in Chapters 1 and 2.

A central focus of this research has been the extent to which curricular continuity is achieved as pupils move from Key Stage 2 to Key Stage 3. The importance of this aspect of the research can be gleaned from the following foreword written by Sir Ron Dearing in 1996:

> 'A concern often expressed during the recent review of the National Curriculum was that there was a loss of momentum in pupils' progress between the end of Key Stage 2 and the beginning of Key Stage 3. Primary schools often felt that their achievements were not being recognised and that secondary schools did not take sufficient account of the progress that pupils had made. Secondary schools, on the other hand, have to plan for pupils coming from a wide range of different primary schools and ensure that the curriculum in Year 7 builds upon what may be a wide range of experience. This is not a new problem, and we need to make progress towards a solution' (SCAA 1996 p3).

While the applicability of this statement was intended to cover the National Curriculum as a whole, the sentiments expressed within it could be endorsed by geography alone. As with other National Curriculum subjects, geography needs to work towards better continuity as pupils progress from Year 6 to Year 7 (Carter 1999a). Through an examination of the current level of cross-phase liaison in the four LEAs under study it is

possible to assess not only what is being done, but also what could be done, to enhance continuity and progression between Key Stages 2 and 3. Once more this requires reference to previous work in this field to enable comparison of the LEAs in which this research was undertaken, with a broader national picture both in geography and other National Curriculum subjects. This is done in Chapter 2.

Through a consideration of the role and status of geography in the primary and secondary school curriculum and how well the subject is being delivered at Key Stages 2 and 3 (Chapter 4), allied to a consideration of continuity, progression (Chapter 5) and cross-phase liaison within and between these phases (Chapter 6), various conclusions can be drawn. These include recommendations for further enhancing continuity, progression and cross-phase liaison which, by the nature of research undertaken, extends into ways in which the delivery of the subject may be improved to achieve these aims. This thesis also provides a case study of one foundation subject, becoming increasingly subjected to curriculum pressures at primary and secondary level, and how under such circumstances foundation subjects in general may need to respond to enable curriculum continuity and pupil progression to proceed across the Key Stage 2 and Key Stage 3 divide.

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Chapter 1

GEOGRAPHY AND THE SCHOOL CURRICULUM

Primary and Secondary School Geography Prior to the National Curriculum

Prior to the introduction of the Geography National Curriculum in September 1991, the delivery of geography in primary schools varied considerably from school to school. How well geography was taught, indeed if geography was taught at all, seemed to depend upon the interests and enthusiasm of teachers in their respective primary schools. This had not always been the case. Geography in primary schools appeared as a separate subject on most school timetables in the late 1950s, with on average two 30 minute lessons a week (Cracknell 1976,1979). The 'Handbook of Suggestions for Teachers' published in 1945 described primary school geography as 'an essential preliminary to a more formal and systematic study of the subject in later years' (cited in Cracknell 1979 p116). With the publication of the Plowden Report in 1967, however, the method of delivery of the primary school curriculum changed with topic/project work replacing the subject-based timetable. Indeed, as class-teachers became generalists, teaching a range of subjects to one class, geography became linked with other subjects with a broader, more thematic, topic based approach being adopted (Walford 2001).

Motivated by the results of a Department of Education and Science survey in 1972 that reported only 14 per cent of primary schools had 'good achievements' in geography,

Cracknell (1976) undertook a further survey to establish the place and nature of geography in the primary curriculum. Conclusions drawn from this survey were:

1. The topic/project approach was the most favoured method of delivering geographical content
2. 71 per cent of teachers still taught geography as a separate subject
3. Geography was taught each week by most teachers
4. 55 per cent of respondents did not make use of the local area to teach geography
5. Classes were taught as a whole, in groups and as individuals
6. 85 per cent of respondents used photographs, 67 per cent film slides and 51 per cent text books to aid their teaching.

From this survey Cracknell (1976) was able to conclude that 'geography is taught regularly, generally as part of a topic or environmental studies approach' (p154). Given the emphasis on child-centred learning as advocated in the Plowden report, Cracknell also favoured delivering the geography curriculum through the topic/project approach, but highlighted the almost total absence of in-service training (INSET) for teachers of geography in primary schools. Drawing upon developments in the discipline at the time, Cracknell argued for the basic concepts or the 'key ideas' of geography to be an integral part of the primary school curriculum, and, as if anticipating a curriculum debate that was to dominate the educational thinking until the introduction of the National Curriculum,

advocated the use of a spiral curriculum beginning with primary schooling and continuing throughout secondary education:

> ‘Only by teaching the key ideas representative of the structure of the subject in progressively more complex form can children ultimately develop a full understanding of the discipline’ (Cracknell 1976 p155).

‘Primary Education in England’ a survey published in 1978 (DES 1978), surveyed 542 primary schools. The survey reported that geography was mainly delivered through topic work, often combining it with subjects such as religious education. Work in geography ‘was judged to be superficial, repetitive and lacking in progression’ (HMI 1990 p7). A lack of planning and support were cited as the principal reasons for unsatisfactory standards. Such a conclusion was supported by Williams and Howley (1989) in citing a 1974 DES survey (DES 1974) where 43% of primary schools studied had no appreciable scheme of work for geography.

The apparent deterioration of geography in primary schools during the nineteen sixties and seventies has also been highlighted by Morgan (1987). Many newly qualified teachers (NQTs) in the early nineteen sixties were well equipped to teach geography having been trained to do so. Resourcing was also good, and geography ‘was sure of its place in the curriculum’ (Morgan 1987 p149). It was the move to a child-centred approach ‘incorporating new freedom and flexibility’ that led to ‘a radical reshaping of the philosophy that underlay the education of young children’ (Morgan 1987 p 149). The 1970s saw the return to an emphasis on mathematics and language with increased importance placed on science and technology. Geography teachers became less

specialised, and often the subject was considered a low priority with little INSET being available or undertaken (Williams and Howley 1989). Geography had to justify its place in the curriculum. In summarizing this phase, Morgan (1995) described geography at primary school level as amounting to little more than projects on a country or local area, with little or no fieldwork. Thus, the quality of geography being delivered was questionable and, moreover, the very place of the subject within the primary school curriculum appeared under threat. Cracknell (1979), in responding to these developments, summarized the challenge facing primary geography:

> 'Ultimately, it will be the ability of geographers to convince educationalists of the value of the subject when taught in primary schools, that will determine the place of geography' (Cracknell 1979 p117).

This challenge was reiterated by Catling some eight years later, while indicating the lack of progress in reinstating geography firmly into the primary curriculum. He suggested that the priority for primary school teachers of the subject was 'to have serious note taken of geography, as a discipline that has a fundamental role to play in the education of young children'. In attempting to gain such recognition, Catling advocated recognising 'the limitations of a child-centred approach' (Catling 1987a p148).

During the decade preceding the introduction of the Geography National Curriculum, standards in primary school geography gave cause for concern. A HMI survey of primary school geography between 1982 and 1986 published in 1989, found that:

> ‘Overall standards of work in geography were very disappointing...there was a tendency for geography to lose its distinctive contribution and to become a vehicle for practising skills related to language and art’ (HMI 1989 p11-12 cited in Binns 1996 p41).

The same report also found that geography was rarely taught as a separate subject, with insufficient time, resources or clear curriculum plans being afforded for its delivery. Only one fifth of schools kept records of pupils’ achievements in geography and, not surprisingly, continuity and progression were lacking in most primary school geography courses. Thus, the report concluded that there had been only a marginal increase in standards from previous surveys. It is not surprising, therefore, that the final report of the Geography Working Group in June 1990 (DES 1990) described primary geography as being neglected.

Undoubtedly, as Binns (1996) and Wiegand (1993) have observed, the topic approach - where geography was taught in conjunction with other areas of the curriculum and only occasionally as a separate subject - was a significant factor in explaining the findings of the HMI report. The same report also highlighted the lack of specialist geography teachers in the majority of primary schools. Morgan (1995) has suggested that this dearth of specialist teachers was attributably to BEd and PGCE courses prior to the National Curriculum devoting only a few hours to geography methods, and that many primary school teaching staff had not continued their geography studies after the age of fourteen.

Although secondary school geography had not faced the same pressures in the 1960s, it came under scrutiny during the 1970s, especially from 1976 when James Callaghan (the

Prime Minister of the time), initiated a major discussion on the whole school curriculum through a speech made in Oxford. The speech, and the discussions that followed it, eventually culminated with the introduction of the National Curriculum. 'The Great Debate', as it was called, took the form of various meetings around the country, followed by a series of documents from the Department of Education and Science. Geography's position in these documents was increasingly being marginalised (Walford 1997). Proctor (1984) in documenting the publication and subsequent responses to a number of government documents on the future schools' curriculum (such as Education in Schools 1977, A Framework for the School Curriculum in 1980 and The School Curriculum in 1981) concluded that geography was not considered worthy for inclusion as a separate subject in the so called 'core curriculum', and was likely to lose its status as such. During this time, the effect of the quantitative revolution at university level was beginning to filter through to schools and undoubtedly this contributed to a reduction in the attention paid to the study of place. The quantitative revolution of the 1960s saw the emergence of a new generation of geography teachers, wanting to integrate this type of geography into their teaching. Developments of curriculum projects, such as Geography for the Young School Leaver and the 14-18 Bristol Project (amongst others) were outcomes, albeit indirectly, of this new teaching philosophy. These developments proved to be very significant during the devising of the Geography National Curriculum at the end of the 1980s.

As early as 1977 the Geographical Association felt it necessary to respond to the perceived erosion of the status of geography when it published a statement outlining the

subject's contribution to the curriculum (GA 1977). There followed numerous publications – most notably 'A Case for Geography' (Bailey and Binns 1987) which directly addressed geography's role in the school curriculum - and vocal campaigns emphasizing the role geography had to play in the whole school curriculum as well as urging action to arrest a decline in the subject's status within schools (Binns 1986, Boardman 1986, Daugherty 1987). Inevitably such preoccupations resulted in a stagnation of 'innovation and pedagogic discussion within the subject itself' (Walford 1991a p5). As a consequence, the then Minister of State for Education, Sir Keith Joseph, agreed to address the Geographical Association in 1985 (Walford 1985, 1997). In that address he posed seven questions:

'1 What should the criteria be for the selection of content in geography in both primary and secondary schools? (Is there not a risk that the lack of attention to the selection of content in the primary phase will hinder continuity and progression between primary and secondary schools?...Should there not be more attention to the possible role of consultant teachers and of the advisory service in primary schools?)

2 How can the practical teaching and learning through geography be strengthened, so that pupils' education is based firmly on direct experience of the world in which they live?

3 When controversial issues are studied, what teaching approaches are needed to ensure that pupils are made aware of attitudes and values of those involved and so become sensitive to the nature and complexity of the issues?

4 Have we got the balance between people and environment right? Is the environment – physical or economic – not still too often presented as a controlling influence and as a determinant of human response?

5 Is enough attention given to the impact of political and economic processes and activities on geographical patterns and changes? Is there not scope for more effective cooperation between geography teachers and their colleagues in other disciplines to foster economic awareness and political understanding?

6 How can the teaching of geography best be organised? As a separate subject or within broader courses?...How can we meet the goal of differentiating the treatment of the subject for pupils of widely differing abilities and aptitudes?

7 If you wish to argue that there are aspects of geography which should figure in the curriculum of all pupils up to the age of 16, what aspects do you have in mind and how can they be accommodated?...Do you have structures in mind which would be very different from those in which most geography is taught at present?'

('The Seven Questions' cited in abridged form in Walford 1985 p21)

The Minister highlighted the issues of continuity and progression through the whole 5 - 16 curriculum (Joseph 1985). Teachers of geography at both primary and secondary level were forced to evaluate their current practices and to justify the inclusion of geography in both phases. Yet as Bennetts (1994a) observed, there was little indication at this stage that 'Ministers were interested in taking control over the content of the curriculum' (p6). The culmination of the response to the provocative questions posed by the Minister was the publication by the Geographical Association of 'A Case for Geography' (Bailey and Binns 1987).

While this response was in preparation, Sir Keith Joseph was replaced by Kenneth Baker as Minister of State for Education. This was to prove to be fortuitous as Baker favoured a broader National Curriculum than his predecessor. This also did not reflect the wishes of the then Prime Minister, Margaret Thatcher, who was desirous of a curriculum composing only the core subjects of English, mathematics and science (Baker 1993, Walford 1995). The introduction of a National Curriculum was announced by Baker in 1986. With Baker perceiving geography as equal in status to history, and being impressed both by the representations of the Geographical Association , who had forwarded a draft

copy of ‘A Case for Geography’ (Bailey and Binns 1987), and geography’s commitment to the use of technology, a delegation from the Geographical Association were assured of geography’s place in the new National Curriculum in June 1987 (Walford 1995). This represented a significant change in curriculum thinking and geography teachers ‘basked in the satisfaction of seeing it [geography] included in the proposed ten-subject National Curriculum when only a few years before they had been resigned to seeing it outside any proposed core’ (Walford 1997 p17).

Despite a preoccupation with defending the position of geography within the curriculum, the two decades prior to the introduction of the National Curriculum were a time of new curriculum initiatives. In particular, three projects specifically targeted at geography were introduced, namely Geography for the Young School Leaver (GYSL), the Bristol 14-18 Project and the 16-19 Geography Project.

Based at Avery Hill College in London, GYSL produced materials aimed at average and below average ability pupils. Materials were written so as teachers from other subject specialisms could deliver them in the classroom. The materials were published by Nelson in 1974-5 as a series of work packs. Pupils were taught through a series of activities using a range of resources rather than textbooks. It proved to be the forerunner of the Avery Hill O level in geography.

The 14-18 Project, established in 1970, was based at the University of Bristol and designed for use with more able pupils. The project aimed to create a new O level in

geography in which half of the available marks were awarded through coursework assessment, devised by teachers.

In a similar fashion, the Schools Council's 16-19 A level project examined the contribution of geography to the education of young people, trying to reduce the influence of university courses in the geography A level syllabus. Central to this philosophy were the people-environment concepts and enquiry approach methodology. Pupils focused on issues that arose from people interacting with their environment and were encouraged to analyse and discuss values and attitudes. Longmans acted as the publisher for course materials and the A level was first examined in 1982. In contrast to more traditional A level examinations, pupils sat a Decision Making Paper as part of their assessment (Butt 1997).

A common aspect of all these projects was enquiry as a method for learning. Games, simulations, role-play, expression of attitudes and values were integral to the courses taught, as was the use of coursework. Textbooks, for example the Oxford Geography Project series (Rolfe et al 1974a, 1974b, 1974c), began to embrace the new method of learning (Rolfe et al 1975), as did GCSE examination syllabuses when first introduced in 1986. In summarising this period Rawling observes:

> 'The broad picture for England is that in the 1970-85 period a great deal of beneficial development work took place on the school geography curriculum system, notably, but not only, through the work of the curriculum development projects' (Rawling 2000a p 211).

Yet such developments were to prove largely fruitless when it came to deciding what format the new National Curriculum in geography should take.

The Devising of the Geography National Curriculum

While geography teachers could take heart that the vigorous defence of the subject had gained geography a place in the new National Curriculum, the devising of that curriculum was about to overlook the views of the very people who would be asked to deliver it, despite early optimism over the consultation process (Daugherty 1989a). Although the Geography Working Group was established in 1989 to design the Geography National Curriculum, it was obvious that the political agenda would be central to the way it would be allowed to work and to any proposals it would submit. Place knowledge and map skills were required to have a high profile. Meanwhile the Task Group on Assessment and Testing (TGAT 1988) (DES/WO 1988) had laid down certain requirements, most notably the need to identify ten levels of progression within each attainment target, which Lambert (1994a) asserts was an attempt to quantify pupils and introduce competition amongst their peers. When the Secretary of State felt it necessary to tell Parliament that the new curriculum should 'emphasise learning about places and where they are' (Hansard 29 April 1991, cited in Rawling 1992, p299), it was clear that the devising of the new curriculum would be directed from central government. Lambert (1994b p70), summarising the changing focus of curriculum control, stated 'The direct message to these teachers seems to be less autonomy and more conformity', while Bennetts (1994a p6) described this period as one where a 'considerable shift in power away from

professional educationalists to central government' had taken place. As a result, when the Final Report was published in June 1990 (DES 1990), specific topics, places, and themes were accompanied by given skills and techniques. The curriculum framework adopted was at the expense of an enquiry approach and any attempt to chart progression through the ten levels of assessment. This despite early curriculum commentators such as Herbertson and Mackinder warning at the beginning of the twentieth century that factual learning should not dominate the curriculum and that problem-solving and decision making should be an integral part of geography teaching (Butt 1992).

The influence of the members of the working group and other influential individuals has been highlighted by Bennetts (1994a), Butt (1992,1997), Rawling (1992) and Walford (1995). Disagreement and division over a number of crucial issues, compounded by the constraints placed upon the working group by the DES (notably the advice to consider attainment targets before programmes of study and the requirement for emphasis on content specific statements of attainment) made the task of the producing a coherent and workable geography curriculum one of great difficulty. Even though geography had secured its place in the National Curriculum, it was still regarded with low esteem in some quarters, and dissatisfaction was expressed with the enquiry approach to learning. This was highlighted by the intervention of Kenneth Clarke in late 1990, when he required the Attainment Targets to 'emphasise more strongly knowledge and understanding of geography' and reduce the emphasis 'on the assessment of pupils' values and attitudes' (cited in Butt 1992, p 163). Clarke's intervention, according to Walford (1991b, 1995), was more a matter of wanting to assert control over two

government quangos and as such geography was unfortunate in being the next subject in line for ministerial approval when he took office. It was, nevertheless, clear that the political agenda and the views of one individual, had combined to dismiss virtually all the curriculum developments in geography of the 1970s and 1980s. The involvement at almost every stage in the formulation of the Geography National Curriculum of the School Curriculum and Assessment Authority (SCAA) typified the desire for a curriculum controlled from the political centre of government (Rawling 2000b, 2001). Described as a return to the utilitarian ideological tradition, geography was no longer seen as promoting progressive educational reforms through developing general educational skills, abilities and fostering an awareness of values (Rawling 2000a, 2001).

Publication of the final proposals for a Geography National Curriculum (DES 1990) met with a mixed response. Concerns over the speed of the implementation and the time constraints that the working group were bounded by had already been raised both prior to and after publication (Bland 1989, Daugherty 1989b, Graves et al 1990a, Naish 1993a, Robinson 1990), once again raising suspicions of a curriculum designed to satisfy politicians, not professional educators. The marginalisation of enquiry and the lack of emphasis on themes and topics in what was largely a content based curriculum was considered a serious flaw by many, including Boardman (1991), Butt (1992), Graves et al (1990a), Rawling (1992, 2000a, 2000c) and Robinson (1992), as it failed to take account of the curriculum developments in geography prior to its inclusion as a foundation subject. The amount of content that had to be covered was also considered too great for current time allocations, despite misgivings about a content rich curriculum deterring

good classroom practice highlighted by commentators well before the formulation of the new curriculum (Bailey 1981). Roberts (1991), in a survey of schools in South Yorkshire, suggested that schools only allocated half the recommended curriculum time for geography, thus making complete coverage of the new geography order impossible. As a result, teaching styles concentrated on didactic approaches simply to cover as much material as possible. Meanwhile, there appeared conflicting opinions over the roles of the statement of attainments and programmes of study. As Rawling (1992 p294) noted, 'the two repeat each other and overlap'. With the 10 levels of assessment also transcending Key Stages, it proved difficult to establish a distinct entitlement for each Key Stage. Commenting on the assessment difficulties of the geography order, Lambert (1994b) gloomily stated 'the assessment of geography in the National Curriculum is going to narrow the learning experience of many children' (p91). In reflecting on the 1991 curriculum in 2000 Rawling (2000c) concluded:

> 'It failed to provide a rationale for the subject (although a generally accepted set of aims was given in the Geography Working Group Report); it failed to provide a clear framework from which teachers could select and develop a school curriculum; key ideas were lost in a welter of specific facts; and it failed to integrate the geographical enquiry process with the knowledge and skills' (Rawling 2000c p119).

The introduction of the Geography National Curriculum was also intended to improve continuity and progression within and between Key Stages (Blatch 1993, Binns 1996, Clarke 1992). Many commentators - Graves et al (1990b), Geographical Association (1994) for example - were quick to criticise the attempts to mark content and levels as indicators of progression. (Attempts to provide for continuity and progression both

before and after publication of the Geography National Curriculum are discussed in Chapter 2.)

It was still possible, however, to find support for aspects of the new curriculum. Walford (1991a), in responding to the criticisms made by Graves et al (1990a, 1990b), suggested that change was most certainly needed as the status quo of the subject was not satisfactory. In addition, the benefits of enquiry were questioned due to a lack of evidence to support its inclusion as a major mode of study. Daugherty (1989b) felt that a geography curriculum of eleven years would allow progression in learning now that a well defined primary school curriculum existed. The inclusion of geography as a foundation subject had also secured its place as a separate subject on the school timetable the benefits of which were highlighted by Butt (1992) and Roberts (1991), while the progress made in developing primary geography can be directly attributably to its position as a National Curriculum subject (Rawling 2000a).

Review of the National Curriculum

Although only implemented in September 1991, a review of the Geography National Curriculum began in April 1993, conducted by Sir Ron Dearing, Chair of the School Curriculum and Assessment Authority (SCAA). This was part of a general review of all National Curriculum subjects at this time. The Geographical Association, in responding to an invitation by Dearing, put forward recommendations for the revision of the geography curriculum (Geographical Association 1993). These included:

- Removing the content from the statements of attainment and relocated it in the programmes of study
- Providing guidance on continuity and progression between programmes of study for each key stage
- Linking the 10 level assessment scale to measuring conceptual understanding and development, not just content
- Retaining statutory assessment and reporting at Key Stages 1, 2 and 3, but with greater teacher assessment.

In a later submission, the Geographical Association concentrated on the need to establish clearly defined entitlements for each Key Stage. In particular, it was suggested that overlap in content between Key Stages be removed and that clear statements which facilitated progression from one Key Stage to the next be provided (Geographical Association 1994). Dearing's final report was published in January 1994 (Dearing 1994). Although not solving the problems of attaining continuity and progression throughout the curriculum, the revised Geography National Curriculum did reduce its subject content and made assessment easier. It provided a revised structure for programmes of study and gave more recognition to geographical enquiry although this term was not specifically mentioned when the new Order was published (Battersby 1995, Rawling 2001). As such it was broadly welcomed, although it still attracted criticism. Bennetts (1994b) and Ranger (1994), for example, drew attention to the overlap of key stage levels and the difficulty of providing assessment for pupils of differing abilities. Additional criticisms

included levels being tied to specific content, the large number of statements (especially for primary school teachers) and the need for enquiry to play a more prominent role. The final report did provide revised guidelines on curriculum time – 36 hours per year in Key Stage 1, 45 in Key Stages 2 and 3.

Primary and Secondary School Geography Post Introduction of the National Curriculum

Reporting at the end of the second year of the Geography National Curriculum, the Office for Standards in Education (Ofsted) were able to provide an early insight into how much difference the National Curriculum had made to the delivery of geography in the classroom.

At Key Stage 2, there were many shortcomings outlined. Geography was almost wholly delivered as part of a topic combined with other subjects. Indeed, Alexander et al (1992) made the following observation:

> 'There is no doubt that much topic work is still very undemanding, particularly in history and geography. Too many topics amount to little more than aimless and superficial copying from books and offer pupils negligible opportunities for progression from one year to the next' (Alexander et al 1992 p22).

The topic based approach led to an over-emphasis on certain attainment targets, reducing the ability of pupils to understand the inter-relationships between attainment targets. In

some geography lessons the focus of the lesson was concentrated on cross-curricular themes, rather than specifically on geography. Curriculum planning was unsatisfactory in over half of primary schools, attributable partly to the lack of subject expertise. In two-thirds of schools, time allocated to deliver geography was below that required to cover the National Curriculum adequately. Recording of achievement in geography was, once again, poor (Ofsted 1993).

In its four recommendations for Key Stages 1 and 2, Ofsted called for primary schools to:

7. Give adequate coverage to all five attainment targets of the Geography National Curriculum and take account of the linkages between them
8. Reconsider if topic work presents the best way to deliver the subject
9. Improve the geographical knowledge of teachers to enable them to plan and teach the geography curriculum more effectively
10. Improve the assessment and recording procedures.

Geography at Key Stage 3, received a far more favourable report. Quality of teaching was satisfactory, or better, in all but 20 per cent of lessons. Departments were well managed, and in 60 per cent of schools, schemes of work were in place or well advanced in preparation. Time allocated to geography was satisfactory, and only in 15 per cent of schools was geography not taught as a separate subject. While there was criticism over the level of reporting and assessment and the lack of utilisation of information technology, the recommendations at the end of the report concentrated on improving

understanding of the complexities of the geography order itself and the assessment and recording arrangements. Significantly, however, Ofsted made a clear recommendation to encourage cross-phase liaison in the subject, requiring schools to 'secure curricular co-operation between primary schools and secondary geography departments in the same area to ensure better progression...and continuity between Key Stage 2 and Key Stage 3' (Ofsted 1993 p28).

In its review of inspection findings for the academic year 1993/94, Ofsted (1995) found some improvement but many of the issues arising out their inspections had familiar undertones. In particular, at Key Stage 2, schools were still finding it difficult to interpret the geography order, assessment, recording and reporting in geography was variable in quality, and coverage of attainment targets remained unbalanced. Despite 83 per cent of lessons being rated satisfactory or better at Key Stage 2, schemes of work for geography were lacking in the majority of schools, hindering consistency, continuity and progression. Indeed the planning and organisation of the geography curriculum was deemed unsatisfactory in many schools, with geography mostly being integrated into topic work. With the management and organisation of the subject being described as inadequate in 75 per cent of schools, it is not surprising that Ofsted's recommendations for Key Stages 1 and 2 bear a striking similarity to those stated two years previously:

- Significant investment in INSET to improve teachers' competencies in geography
- Clearer management, leadership and guidance to teachers to ensure a consistent geographical education including better recording and assessment practices

- Ensure a sharper geographical focus within topic work

(Ofsted 1995a).

Key Stage 3 geography once again received a more favourable report. 83 per cent of lessons were satisfactory or better, teachers' knowledge of the subject was good, statutory reporting and assessment requirements were being met, most secondary departments were well managed, had schemes of work in place and were adequately resourced. Ofsted's recommendations for Key Stage 3 and 4 focused on improving non-specialist teacher competencies through INSET, finding more time for discussion between teachers and encouraging differentiation in lessons (Ofsted 1995a).

Commenting on the findings of the inspection evidence from 1995/96, Smith (1997a) found a similar situation existing in primary schools to that which had been recorded in the previous two Ofsted reports. These included information technology being barely used, curricular planning still inadequate in two-thirds of schools at Key Stage 2, resourcing for geography variable and assessment, recording and reporting weak in nearly all primary schools for geography. In addition, 20 per cent of lessons at Key Stage 2 were deemed unsatisfactory. Standards achieved at secondary level once more showed further improvements to those reported upon in previous inspection findings. At Key Stage 3 standards again compared favourably with Key Stage 2. Pupils were reported to have a sound knowledge and understanding of places while only 10% of schools were considered to have poor standards at Key Stage 3. Only one lesson in six was considered unsatisfactory at Key Stage 3, although practical and investigative work was still

underutilized. In referring to the changes in the Geography National Curriculum in 1995, Smith (1997b) concluded that secondary teachers had not only adapted to the new requirements, but had benefited from them. This confidence was confirmed by Donert and Grimwade (1998), in a survey of secondary school geography. Only 13.2 per cent of respondents felt less confident about geography at Key Stage 3 compared to 1995. In addition, Donert and Grimwade's survey found that the mean time allocation for Key Stage 3 geography was 95 minutes a week, although there were a large number of non-specialists delivering the geography curriculum and financially geography departments were under-resourced.

In a review of the first four years of Key Stage 2 geography, Morgan (1995) suggested that topic work, while still very much in evidence, could not subsume all the requirements of the geography order and that geography as a separate subject was starting to emerge. Other critical observations were made by Smith (1997a) who drew attention to the lack of coverage of geography content in topic work that is purported to be cross-curricular in design. In addition, the quality of geography lessons was questioned, with 10 per cent of primary schools failing to fulfil the statutory requirements of the geography order. Smith (1997a) attributed this failing to the fact that many primary teachers were not fully competent in geography. Such findings led Smith to call for a major INSET investment for primary school geography teachers as 'Professional development through INSET is fundamental to providing increased competence...and...has a marked effect on standards achieved' (Smith 1997a p 5).

Changes to Statutory Requirements for Geography at Key Stages 1 and 2

While there was a need to improve the delivery of geography at Key Stage 2, the subject itself, along with other foundation subjects, was coming under increasing pressure from other curriculum developments at the primary level. Most notable among these were the literacy and numeracy initiatives. Introduced in 1997 and 1998 respectively, primary schools were required to renew their focus on basic literary and numeracy skills. This was to be achieved by devoting time to these curriculum areas, often referred to as the literacy and numeracy hours. In addition, the publication of primary school league tables, based upon the standard attainment tests (SATs) in English, mathematics and science further increased the emphasis on these core subjects. Such additional pressures impacted upon the delivery of the foundation subjects to such an extent that on 13 January 1998, the then Secretary of State for Education, David Blunkett, announced a change to the statutory requirements for the six National Curriculum foundation subjects. This was communicated formally by Qualifications and Curriculum Authority (QCA) later that year:

> ‘From September 1998 to September 2000, all schools providing for Key Stages 1 and 2 will still be required to teach:
> a broad and balanced curriculum; including
> the ten national curriculum subjects and religious education.
>
> However, primary schools will no longer be required to teach the full programmes of study in the six national curriculum foundation subjects. From September schools will have greater freedom to decide what is taught in:
> Design and technology; history; geography; art; music; and physical education, with the exception of swimming which remains a statutory requirement.

> The current requirements for English, mathematics, science information technology and religious education will remain unchanged'
>
> (QCA 1998a p3).

This suspension of the formal requirements of statutory coverage was to be followed by a period of consultation, and a new curriculum to be published in late 1999 for teaching in September 2000 (QCA 1999a).

The Geographical Association (1998) immediately issued a document to all primary schools highlighting the requirement to still teach some geography and provided guidance for schools on the content of a reduced geography programme. It was suggested that such a programme should include:

11. A mix of places, skills and themes
12. Investigations into pupils' own locality and localities of other places
13. Introducing geography into numeracy and literacy programmes
14. Opportunities to reinforce numeracy and literacy when teaching geography

QCA (1998a) also provided further guidance for revamping the curriculum for geography at Key Stages 1 and 2, supporting earlier guidance (QCA 1997). This included retaining the range of content in places and themes but prioritising selected parts, combining themes with the study of localities and reducing the number and/or the content of places and themes taught. The most significant publication at this time, however, were schemes

of work for Key Stages 1 and 2 (QCA 1998b). Designed to provide exemplification and interpretation of the Geography National Curriculum, the schemes provided primary school teachers with a ready template that could be adopted as the geography curriculum at Key Stages 1 and 2, even though that was not the original intention (Westaway 2001).

A few months later, the Geographical Association published a curriculum statement defining geography's position in the curriculum (GA 1999a), along with their own National Standards for Geography Leaders in primary and secondary education (GA 1999b, 1999c) adapted from those set out by the Teacher Training Agency (TTA 1998). Once more, it seemed, geography, under the auspices of its professional body, was being forced to defend its status and credibility as a subject within the curriculum. The criticisms and frustrations previously voiced over earlier versions of the National Curriculum were apparent once again in a series of recommendations postulated. These included, at least one hour a week of curriculum time at Key Stages 1 and 2, and one and half hours at Key Stage 3, a clear understanding of the expectations, knowledge and understanding required at each level of the National Curriculum and that the programmes of study be flexible enough to allow a variety of approaches to the delivery of the subject.

Some commentators responded with vigour to these changes. Walford (1998) describes the changes as 'deeply and adversely' affecting the status of the subject, while Rawling (2000a) and Thrift and Walling (2000) contend that this change in policy reduced the accessibility of geography to primary school pupils. Despite the requirement to teach a broad and balanced curriculum, the status of geography would appear to have suffered

some devaluation as Ofsted had been instructed not to inspect geography specifically in the next few years. Grimwade (1998) considered that the reforms presented a 'serious threat' to geography, but called for renewed efforts at primary-secondary liaison. Marsden (1998a) questioned whether geography would be taught at all as a result of these changes, as primary schools whose league table position would be assessed by performance in the core subjects would devote as much time as possible to improvement in these areas. Conversely, Rawling (1999) called for a renewal of curriculum development projects perceiving the reduction in prescription and increase in flexibility that the changes would bring as an opportunity.

In confirming some of the concerns expressed, early evidence regarding the effect of the literacy hour suggested that schools were relegating foundation subjects to one short session a week at best, often restricted to afternoon timetable sessions. (Walford 2001, Williams 1999). Studies of primary schools in Kent (Alcock 2001) revealed a significant disparity of provision of geography at Key Stage 2. Indeed Ofsted concluded:

> 'The reduction in the Key Stage 2 geography curriculum in 1997/98 resulting from the literacy initiative is already beginning to affect year 7 and reduce the breadth of pupils' geographical knowledge on entry into secondary school' (Ofsted 1999a).

Such a conclusion was supported in 2001 (Ofsted 2001a p1) where the general pressures of the primary school curriculum were considered to have 'reduced the breadth and depth of the geography curriculum' in a significant minority of schools.

In response to the difficulty of delivering geography as a separate subject Carter (1998) explored a number of possible ways of integrating geography into other subject areas, notably encouraging the study of children's books from both an English and geographical perspective and highlighting the many areas of the subject where mathematical skills could be developed.

As the onset of a new geography order approached, it was clear that primary school geography was not faring well, even in comparison to other foundation subjects. Ofsted reported that standards were rarely good, although were continuing to improve steadily, and that there 'was less good teaching in geography than in most other subjects' (Ofsted 2000a p1). Pupils' achievement in geography was poor in one school in eight and there was 'too little good work in geography' (Ofsted 2001a p1). In comparison to secondary school geography, where teaching was considered good in six schools out of ten (Ofsted 2001b), there was clear room for improvement. With a return to the statutory requirement that schools should fulfil all the geography order in September 2000, it was hoped that this situation would improve (Ofsted 2001a).

Geography Curriculum 2000

Following a second review of the Geography National Curriculum between 1998 – 2000, September 2000 saw the implementation of a new statutory curriculum for all Key Stages. In a departure from previous practice, QCA (having replaced SCAA) involved the geography community to a much greater extent in the review process (Rawling 2000c).

Allocating 24 hours per year (equivalent to 40 minutes a week) to Key Stage 1, and 30 hours a year (equivalent to 50 minutes per week) at Key Stage 2, the new curriculum represented a reduction of approximately one third of the time allocated to geography under the previous statutory orders (Grimwade 2000). Reduction in the content at Key Stages 1 and 2 also took place, with the number of localities studied at Key Stage 2 reduced from three to two and the removal of weather as a theme for study. Other changes included increased emphasis on sustainable development and global citizenship. The degree to which these changes would involve more work for primary teachers depended upon the extent to which geography teaching was diminished during the suspension of the statutory requirements at this level between 1998 and 2000 (Westaway and Jones 2000a).

While the Key Stage 3 curriculum received little change in content (although prescribed content was reduced), reductions occurred in the specified skills section, while increased choice of themes and places to study promoted more flexibility. There were new emphases, the most noteworthy being a focus on sustainable development (Rawling 2000c). Although there were presentational and other cosmetic changes in the final published document (common to all Key Stages) Westaway and Jones (2000b) concluded that the 2000 revision of the curriculum would require little change from existing practice.

In challenging this assumption, Rawling (2000a, 2000c) concluded that the new curriculum provided the opportunity for innovation within a ‘more workable curriculum

framework' (Rawling 2000c p119). In summary, the new Geography National Curriculum (DfEE/QCA 1999) enabled teachers to introduce topics of their choice, to vary the emphasis and balance of topics taught, to utilise new approaches and ideas in geography and, in a cross-curricular context, to integrate other curriculum priorities into the design of the geography curriculum (Rawling 2000c). Contending that the Geography National Curriculum introduced in 2000 reflected the curriculum developments of the 1970s rather than refinement of the first geography order of 1991, Rawling concluded that the new curriculum recognised 'four key aspects of the subject, including geographical enquiry and skills', provided 'a clear entitlement for students of different ages' and allowed 'sufficient flexibility so that teachers can develop their own school-based plans' (Rawling 2000c p119).

Flexibility was not welcomed by all, however. Walford (2001 p1) for example, argued that flexibility is 'attractive' but 'sends out the message that nothing in geography (not even learning the continents and oceans, and winds and currents) is essential'. Indeed, Walford (2001), in reiterating some of the principles upon which the original Geography Working Group based its proposals, suggests that the Geography National Curriculum needs to have a content-based structure in order to protect geography's position in primary and secondary schools.

Conclusion

The period of time from the end of the Second World War to the present has seen the discipline of geography fighting not only to establish its parameters, but often for its very existence as a school subject. In this fight, geography in primary schools has regularly been thought of, and treated as, distinct from geography in secondary schools. As such, it has been appropriate to chronicle the developments of the subject in these two phases separately.

It is in the area of primary school geography, in particular, where differing educational emphasises and curriculum developments have conspired to stagnate its development. The move to more topic-based work and fusion of subjects, especially in humanities, has resulted in many efforts to retain geography's distinct profile and contribution to the learning experience of primary school children. The introduction of the Geography National Curriculum has assisted in providing a statutory framework for geography, although even here, the nature of the teaching and delivery of the subject within this framework would appear variable.

It is, therefore, necessary, as a prerequisite to understanding the extent to which continuity and progression within and between Key Stages 2 and 3 is occurring, to establish the current state of geography in primary schools. How the subject is delivered, the content covered and the interpretation of the National Curriculum are all fundamental aspects of this research. Implicit in each of these themes is the role of the geography coordinator in primary schools and the influence coordinators have upon the subject's delivery. The effect of curriculum developments towards the latter half of the first decade

of National Curriculum geography also need to be explored. In particular, the relaxation of the statutory requirement to fulfil the Geography National Curriculum between January 1998 and September 2000, and the introduction of the supporting QCA schemes of work and their impact of curriculum design at Key Stage 2.

The status of geography in secondary schools has remained more secure throughout the latter half of the last century. This has not meant, however, that the subject at this level has not been without controversy. The substantial efforts to ensure geography's place in a National Curriculum and the subsequent debate regarding the nature of that curriculum has been a major theme following the conception and introduction of the National Curriculum philosophy. It is, therefore, again appropriate to consider the way in which geography is delivered and interpreted at Key Stage 3 in order to achieve a better understanding of how continuity and progression within the Geography National Curriculum is being achieved.

Continuity and progression within and between each phase of the Geography National Curriculum can only be achieved if a clear curriculum framework is in place. In an effort to achieve the latter, the subject itself needs to have a secure footing. The introduction of a National Curriculum and its subsequent revisions have meant that the last twenty years of the twentieth century have witnessed the passing of educational legislation at a rate previously unseen. Successive governments during this time have viewed educational reform with increasing importance on their political agenda. The lack of any period of curriculum stability has undoubtedly adversely affected attempts to achieve continuity

and progression both within key stages and at the primary/secondary interface (Dainton 1995).

Geography, initially at primary school level but increasingly at Key Stage 3 as well, has become subject to curriculum pressures, with the result that the subject has been marginalised at Key Stage 2 in many schools and will continue to have to lobby to retain its status at Key Stage 3 (Grimwade 2001a, 2001b, Rawling 2000a, 2000c). A new focus on targets and league tables (especially in the core subjects) has moved discussion away from details of content to a situation where geography's status within the curriculum will depend upon its ability to implement more general curriculum initiatives (Rawling 2000b).

Writing in 2000, Rawling postulated that geography teachers at all levels need to address three questions related to their delivery of the subject:

> 'The school curriculum system – do teachers have access to a curriculum framework for the subject which is workable and capable of being developed into good quality geography teaching and learning?
>
> The geography education system – do teachers perceive themselves as part of a wider community of geography and geography educators at all levels?
>
> The national education system – does geography have a firm place and assured status in the national education system?'
>
> (Rawling 2000a, p210).

In assessing the state of primary and secondary geography at the time of this research it is intended to address these questions. Indeed, these questions not only have an importance

for the delivery of the subject itself, but also, the response of geography teachers and departments to these questions is indicative of the success with which continuity and progression within and between Key Stages can be achieved.

Chapter 2

CONTINUITY, PROGRESSION AND CROSS-PHASE LIAISON IN THE GEOGRAPHY CURRICULUM

Theories Regarding Continuity and Progression in the School Curriculum

The way in which continuity and progression are defined and integrated into a subject specific curriculum will vary between each discipline (Ausubel 1968). It is a necessary prerequisite to any subject specific discussion of these concepts, however, to consider the theories that have subsequently influenced attempts to define and integrate continuity and progression into the school and geography curriculum.

Achieving continuity and progression in the school curriculum is not just presenting a series of topics in a given order to deliver specified content. Much thought needs to be given to the sequence of learning activities. Taba (1962 p295) stresses the importance of considering the 'sequence of learning experiences' in order to master abstract concepts, skills in analysing data and to develop methods of analysing problems. In describing the importance of sequence Taba (1962) touched upon the principles of continuity and progression:

> 'The initial encounter with a concrete instance of an idea, a concept or a feeling needs to connect that which is to come with whatever the student already understands or feels and to open up the possibility of new learning' (Taba 1962 p295).

Taba was keen to emphasize that any description of what was to be covered in a curriculum should involve two dimensions; 'the content to be mastered and what mental processes are acquired' (Taba 1962 p428). As such progression in the curriculum is difficult to achieve if it is not distinct from, or tied to, content:

> 'Much of the confusion and difficulty in developing cumulative and continuous learning comes from the fact that in setting up sequences in curriculum designs, only the sequence of content is considered, while the sequence of the powers and competencies is largely overlooked. The result is that the curriculum sequence reflects the growth in the mental powers only to the extent that the level of content requires it, and not because of a clear plan for the developmental sequence of these powers, competencies and skills' (Taba 1962 p429).

In discussions of how best to integrate progression into curriculum design, many commentators (Ausubel 1968, Beard 1969, Graves 1975,1979, Taba 1962) have cited the work of Piaget (for example Piaget 1950, Piaget and Inhelder 1959) on child development. In the context of this research, the periods of child development that are most relevant, as described by Piaget, are those of 'concrete operations' (extending from approximately 18 months to the age of 11 or 12) and those of 'formal operations' beginning at approximately 12 years of age and lasting about three years (Beard 1969). Graves (1975) describes the 'concrete operations sub stage (7-12)' as a period when 'operations become true mental operations…the child can begin to work things out in his head without necessarily needing to manipulate them physically at every step in the thought process' (Graves 1975 p163). Meanwhile 'during the period of formal operations (12+ years), the adolescent develops the ability to think in a hypo-deductive manner and not to be imprisoned by his immediate environment or experience' (Graves 1975 p166).

In trying to incorporate the developmental changes of children, curriculum designers have the problem of identifying when children begin to move from more concrete operations to more formal or abstract operations. Graves (1979) contends that 'until the ages of 14-15 years most students are at the stage of concrete operations' and that any course 'must to some extent follow an inductive method and be based on concrete examples' (Graves 1979 p48). In contrast, Taba (1962) suggests that children can 'think abstractively and reflectively at the age of 7, provided what they are asked to think about is simple enough and sufficiently within the range of their motivation and experience' (Taba 1962 p296).

In designing a curriculum that allows for a child's development, the concept of progression of learning activities is essential. Taba (1962) described this providing for 'a progressively more demanding performance: more complex materials to deal with, more exacting analysis, a greater breadth and depth of ideas to understand, to relate, to apply, and a greater sophistication and subtlety of attitudes and sensitivities' (Taba 1962 p296). In order to achieve this progression, however, Taba (1962) stressed that it is not necessary to change the content taught:

> 'This cumulative progression need not necessarily be tied up with a shift in content. It is conceivable that the same content can be – and often is – studied on two levels, one requiring a more mature understanding, more penetrating analysis and a deeper insight than the other' (Taba 1962 p297).

The concept of building upon prior learning is most apparent in this statement. Significantly, Taba's comment endorses the theory of a 'spiral curriculum' postulated by

Bruner (1960). Bruner (1960) contended that 'a curriculum as it develops should revisit…basic ideas repeatedly, building upon them until the student has grasped the formal apparatus that goes with them' (Bruner 1960 p13). In essence, a spiral curriculum 'develops an idea gradually and in a different form from the first year of a course to the last, gradually examining the complexities of the idea and its theoretical aspects' (Graves 1979 p48). Bruner (1960) contended that 'the foundations of any subject may be taught to anybody at any age in some form' (Bruner 1960 p12). Ausubel (1968) described this in the following terms:

> 'In certain selected instances, where genuine readiness actually exists, it may be desirable for children to acquire prior intuitive understanding…if for no other reason than to reduce the unfamiliarity of the ideas in question when they are introduced later…Such intuitively learned content may serve as anchoring ideas or as general background for the later learning of the same content at a higher level of abstraction, thereby increasing its potential meaningfulness' (Ausubel 1968 p197).

In providing this endorsement of Bruner's (1960) spiral curriculum Ausubel (1968) cautions that an attempt should not be made 'to teach at an intuitive level reduced versions of anything and everything that is presented later at a more abstract level' (Ausubel 1968 p209).

Implicit, therefore, in the design of a spiral curriculum is the notion of revisiting content. Bruner (1960) justified such revisiting in a discussion of curriculum structure, contending that ideas introduced can be utilized in later learning and later learning relies on understanding of previously met phenomena. Taba (1962) explains this philosophy as follows:

> ‘Such a cumulative spiral should provide continual reinforcement by continuing in use that which has been acquired, either through practice or through use in the new context’ (Taba 1962 p297).

This brief account of early curriculum influences on continuity and progression implies that while it is possible to consider each of these entities separately, achieving their successful integration into the design of the curriculum frequently involves considering both simultaneously. Many of the general principles outlined by the curriculum commentators of the 1960s have influenced the design of the geography curriculum and attempts to integrate continuity and progression within it.

Defining Continuity and Progression in Geography

As geography ‘is not a linear subject but one in which young people return to different key ideas in different contexts over time’ (Carter 1999a p289), continuity and progression have been widely cited as a necessity in its curriculum design. While often referred together, continuity and progression ‘are different features of planning and the presence of one does not necessarily indicate the presence of the other’ (Owen and Ryan 2001 p51). Indeed Taba (1962 p291) asserts curriculum organisation is confused by not separating the ‘organization of content and the organization of learning experiences’. It is, therefore, necessary to define continuity and progression separately. Owen and Ryan (2001) provide the following definition of continuity:

> ‘Continuity focuses on a teacher’s or school’s provision and the children’s experience. It should be evident in long term planning through significant features of geographical education occurring on a regular basis’ (Owen and Ryan 2001 p51).

The ‘significant features of geographical education’ that are considered necessary for focusing upon include content studied, the types of learning activities employed, the common assumptions made about the nature of geography, geographical skills and use of resources’ (Owen and Ryan 2001). Meanwhile, Chambers and Donert (1996) define progression as:

> ‘careful and deliberate sequencing of learning so that children can build their current learning on previous experience and also prepare for future learning’ (Chambers and Donert 1996 p27).

In this context the sequence of learning activities is considered important, with a spiral curriculum advocated - pupils revisiting ideas throughout their school experience but at a higher level – as is the need to assess individual pupil learning to match new tasks to a pupil’s capabilities in order for them to progress. Bennetts (2001) has highlighted the importance of the sequence of learning activities. Bennetts ‘sequential curriculum’ (Bennetts 2001), however, is only envisaged at a small scale and not considered applicable at a larger scale such as a complete Key Stage. Within smaller units of work, however, sequence is considered an essential tool in enhancing progression. Bennetts (1995a) distinguishes between continuity and progression in the following way:

> ‘The idea of continuity suggests the persistence of significant features of geographical education as pupils move through the school system. Such features could include aspects of content, particular types of learning activity or common assumptions about the nature of the subject. With strong continuity, it is possible to design courses which

enable pupils to build upon their previous experience and learning; and, thereby, help them to acquire knowledge and develop their understanding, skills and competencies in a structured way. Continuity of provision and approach can be looked for both within and between schools.

The idea of progression, on the other hand, focuses on how pupils' learning advances. It can be applied to both the design of the curriculum, in particular how the structure of content and sequence of learning activities are intended to facilitate advances in learning, and to the gradual gains in knowledge, understanding, skills and competencies which pupils actually achieve. The idea of progression is complementary to that of continuity. While continuity of curricular provision provides opportunity for advances in learning, by itself it does not guarantee them. Progression has to be planned for and monitored, and the only effective way of doing the latter is by use of assessment'

(Bennetts 1995a p 75).

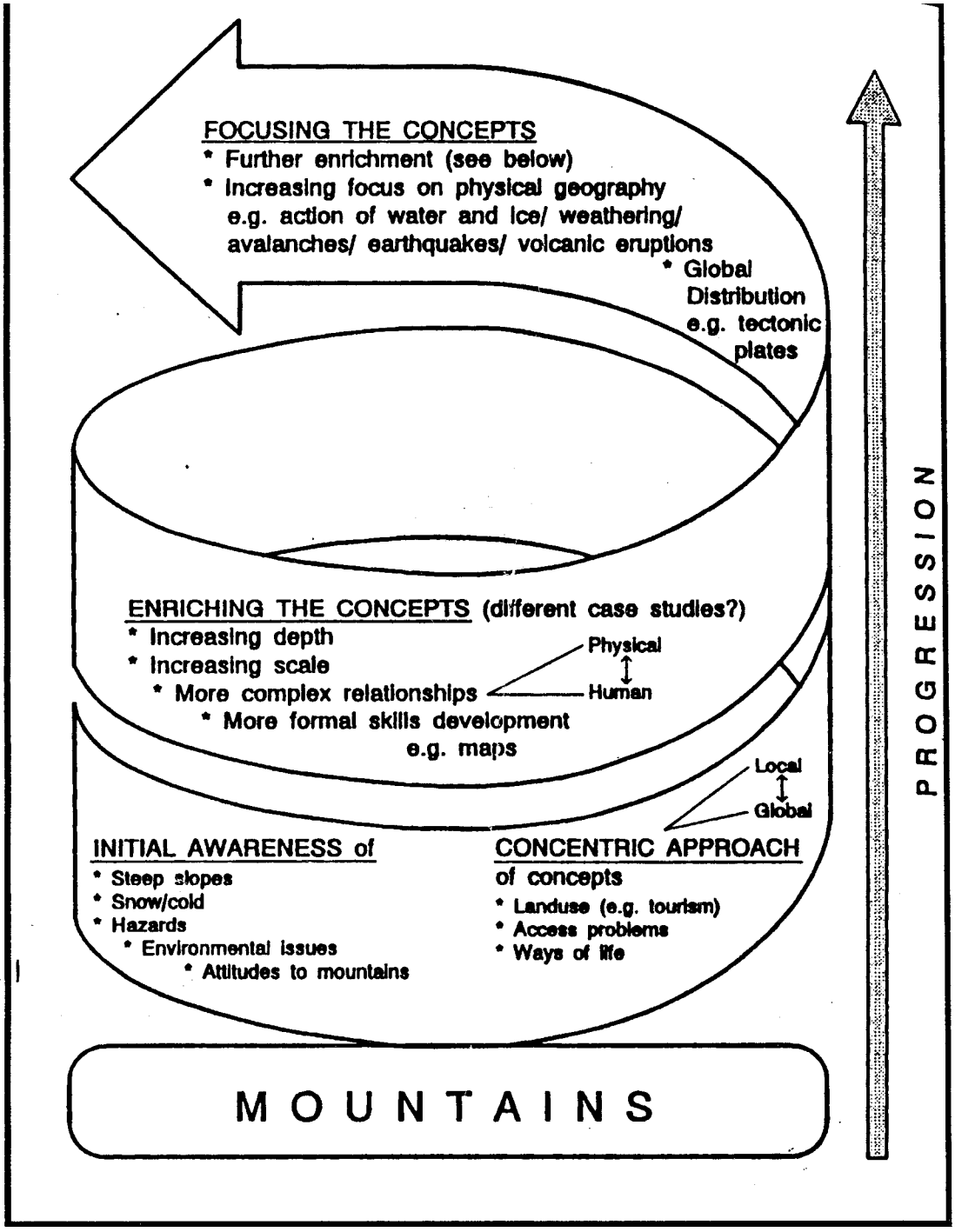
While progression is considered primarily in terms of curricular design, Bennetts (1986,1996) and Rhys (1972), in citing the work of Piaget (1950), have stressed the importance of taking account of the way in which pupils mature. In this context, progression in geographical understanding is associated with a pupil's ability to apply geographical ideas to unfamiliar situations. In establishing a set of principles for strengthening progression in geography courses, Bennetts (1981) considered the following assumptions as a prerequisite for course designers:

- Some skills and ideas are inherently more difficult than others
- Different levels of understanding can be used to approach the same idea
- Appropriate teaching methods can be facilitated by analysis of learning tasks
- Learning is facilitated where prior experience and knowledge are built upon and unnecessary difficulties are avoided

- Course design should take account of pupil maturity of the period of teaching
- Learning tasks should be related to pupils' capabilities and interests
- Pupils' progress should be assessed to make necessary adjustments to the teaching programme for individual pupils with particular requirements.

Rainey and Krause (1994) postulate that progression in geography takes place through increased accuracy of skills used, increasing scale of areas studied and increasing complexity of content. As such this concurs with Adey (1997) who argued that for all subjects conceptual complexity was essential in curriculum progression, handling and integrating concepts that related to previous work undertaken. Central to the concept of progression is the spiral curriculum as postulated by Bruner (Marsden 1995). For progression to occur concepts need to be revisited, reinforced and refined at various stages of a pupil's development, although crucially repetition is not advocated. Moving from familiar to unfamiliar, near to more distant, concrete to abstract, smaller to larger scale, increasing the breadth and depth of coverage are tenets of this philosophy. An example of the working of a spiral curriculum in primary geography is shown in Figure 2.1. For a pupil's understanding of a concept to be enhanced, constant revision and revisiting of that concept is essential.

Figure 2.1 The Spiral Curriculum in Primary Geography (Marsden 1995 p82)



For curriculum design to be successful, Marsden (1997) cites the work of Derricott (1985). He states that curriculum continuity is dependent upon five key concepts:

- Transition from stage to stage should be a gradual adjustment
- Liaison between schools
- Continuity of curriculum in terms of agreed aims, objectives, content, skills etc.
- Consistency of approach in delivering the curriculum
- Structure in progression as pupils' mature being able to cope with more complex ideas.

In attempting to define continuity and progression both in general terms and more specifically within the geography curriculum, it is apparent that arriving at an agreed definition is problematic. Indeed, while there is some agreement between commentators on the elements of continuity and progression that should be integrated into the design of a geography curriculum defining what continuity and progression actually is has proved to be a complex, and often contested, debate. Such differences of opinion have characterised attempts to integrate continuity and progression into the school and geography curriculum both prior to and after the introduction of the National Curriculum.

Attempts to Integrate Continuity and Progression into the School and Geography Curriculum Prior to the Introduction of the National Curriculum.

The philosophy of curriculum continuity straddling the various phases of a child's education can be traced back to early in the twentieth century. Indeed the Hadow Report on primary schooling of 1931 recognised the need to consider the school curriculum as a whole and not in a piecemeal fashion according to phase:

> 'the process of education from the age of five to the end of the secondary stage should be envisaged as a coherent whole...and that the transition from any one stage to the succeeding stage should be as smooth and gradual as possible' (p70 cited in Derricott 1985 p2).

Indeed, the Plowden Report of 1967 (DESCACE 1967) suggested that transfer at the age of 11 from primary to secondary school, had an adverse effect on pupil progress due to the substantially different learning environments of the respective phases. A concern that was also to be expressed some thirty-two years later (QCA 1999a).

In a distinct effort to establish curriculum continuity at the local scale, the City of Birmingham's Educational Development Centre set up a project designed to achieve this goal:

> 'It is generally accepted that the continuity of the curriculum is highly desirable, and that the secondary school as far as possible continue where the primary school leaves off. There should be every endeavour to avoid repetition of work, in particular the use of the same text books in primary and secondary schools' ('Project 5: Continuity in Education – Junior to Secondary' cited in Derricott 1985 p3).

Continuity and progression within geography had already begun to receive much attention prior to the publication of 'A Case for Geography' (Bailey and Binns 1987). Marsden (1976) highlighted the need to structure teaching such that pupils moved from familiar to unfamiliar, and from concrete to abstract concepts from the outset of their geography course at secondary school. Marsden (1976) also suggested that secondary school teachers must be aware of the progress prior to entry into the school and hence the readiness of that pupil to undertake a particular task. Other publications adopted a similar theme. In 1978, HMI raised the importance of progression:

> 'Although what can be achieved at a particular stage will depend largely on pupils' experience and intellectual capabilities, important ideas should be returned to again and again, with a gradual extension and deepening of understanding' ('The Teaching of Ideas in Geography' HMI 1978, cited in Daugherty 1996 p201).

The Inner London Education Authority, meanwhile, focused upon the adverse effect of curriculum discontinuity:

> 'For some first year secondary pupils, the geographical/environmental component in their work may be, at best, repetitive and, at worst, considerably less demanding than studies carried out in the primary school. For other children, unrealistic expectations by the secondary specialist teacher (for example, the inability to use an atlas) may induce feelings of bewilderment and/or hostility' ('The Study of Places in the Primary School', ILEA Curriculum Guidelines 1981, cited in Derricott 1985 p130).

Bailey (1980) suggested that there were two aspects to the problem of achieving progression - the first being how to treat geographical topics incrementally rather than repetitively, and the second being to decide which topics are suited to different age groups. Bennetts (1985a) drew attention to the differing experiences of pupils within the

same subject area due to differing teaching methods and choice of content. Once again, the spiral curriculum was advocated, so that pupils would acquire and utilise more complex skills, and work with more abstract ideas that had been introduced in more simplistic form at an earlier stage. Bale (1987) also agreed with such an approach as it would make learning easier.

In an attempt to establish a clear structure and good practice in the geography curriculum from 5 –16, in 1986 the DES published a document that tackled the issue of continuity and progression directly:

> ‘Between the ages of 5 and 16 pupils experience considerable physical, intellectual, emotional and social development associated with their gradual maturing. Their intellectual development is marked by significant changes in style of reasoning and quality of thinking which schools must support and foster. The geographical component of the curriculum should be designed to facilitate pupils’ progression in learning by a careful structuring of content and activities, to take account of the ways in which pupils mature and the nature of what is to be learnt. Pupils should be helped to build upon their previous experience and learning, and their understanding, skills and competencies should be taken forward in programmes which attempt to match the educational demands made upon them to their capabilities...Assessment of pupils’ progress is essential to provide teachers with the information necessary to adjust their programmes to meet the requirements of individuals’
>
> (DES 1986 Curriculum Matters 7 p39).

Progression was considered to involve five key concepts:

- Increasing the breath of study to extend pupils’ knowledge
- Increasing the depth of study to cope with more advanced and complex concepts
- Increasing the spatial scale of geographical studies

- Continuous development of skills
- The consideration of social, economic, political and environmental issues at an increasing level of complexity.

For progression to be achieved there had to be continuity, and the DES recognised a lack of liaison between the primary and secondary sectors as a major obstacle. Indeed, the guidance offered stressed the importance of such links:

> '...sharp discontinuities can impede progression in learning. Such discontinuities are most likely to occur when pupils move from one teacher to another and from one school to another. ...Without effective co-ordination between teachers there can be unnecessary repetition of work and a failure to build on pupils' previous experience and learning...a teacher receiving a new class also requires an accurate record of what the pupils tackled in previous years and with what success' (DES 1986 Curriculum Matters 7 p41).

If progression and continuity were to be achieved, then liaison between geography departments in secondary schools and their feeder primary schools was an essential element of curriculum planning. As the DES stated, 'The greater challenge for primary, middle and secondary schools, however, is to provide a smooth transition between the phases' (DES 1986 p 41).

Leading commentators within geographical educational also stressed the need for continuity and progression in the Geographical Association's publication 'A Case for Geography' (Bailey and Binns 1987).

In recognising the difficulties facing the subject in a number of areas Bailey (1987a) especially highlighted the importance of teacher consultation between primary and secondary schools in order to achieve continuity and progression, while Catling (1987b) and Catling and Gwilliam (1987) called for a return to geography as a separate subject in primary schools as piecemeal tasks failed to retain the focus on geography. Bailey (1987b) stressed the importance of building upon the primary school experience and making up for any omissions, while ensuring that work was not repeated. Without liaison between teachers, there would be little progression and continuity. A message repeated by Wiegand (1987) advocating agreed content in the primary and secondary phases to minimise repetition and reinforce earlier learning.

Prior to the introduction of the National Curriculum, commentators appeared to agree on the need for continuity and progression, although achieving continuity and progression both within and between primary and secondary schools was hindered by the lack of any common geography curriculum. One notable exception, however, was Tickle (1985), who argued for the notion of 'planned discontinuity', suggesting that while continuity of experience ought to be the general goal of transition between phases, there were pastoral and curricula areas where discontinuity would bring a fresh and invigorating approach to learning and stimulate development. In commenting upon this concept, Williams and Howley (1989) described planned discontinuity as an advantage for some pupils that may benefit from a complete change of pattern, a notion supported after the introduction of the Geography National Curriculum by Newby (1995).

Continuity and Progression Following the Publication of the National Curriculum

The creation and implementation of the Geography National Curriculum was heralded as an opportunity to achieve the continuity and progression so often desired prior to its publication. Primary school children were now considered to be entering secondary school 'with an extensive and coherent foundation to be built upon' (Catling 1989 p100). Indeed, Binns (1996 p43) observed that 'With the introduction of the Geography National Curriculum from September 1991, secondary teachers should, theoretically, have a much better understanding of what children have been taught in feeder primary schools.' In concurring with this view, Williams (1997 p65) described one of the 'strengths' of the Geography National Curriculum as giving 'the opportunity for teachers in primary and secondary schools to confront directly a common definition of the subject, a set of aims for each Key Stage, and an attempt to provide a coherent set of attainment descriptions expressed through geographical skills, places and themes.' Williams concluded that 'In principle, these arrangements should reduce the scope for discontinuity' (Williams 1997 p65).

The Secretary of State for Education, Kenneth Clarke, in an address to the Royal Geographical Society, commented that 'The establishment of levels of attainment will provide a powerful stimulus for schools to plan better continuity of provision and to improve progression in pupils' learning' (Clarke 1992 p29). Likewise, while addressing the Geographical Association in 1993, Baroness Blatch contended that the National Curriculum had provided a common framework for progression. As the National

Curriculum ensured that assessment of geographical skills and knowledge regularly took place against clearly defined national criteria, progression would be achieved. Pupils' weaknesses could be addressed, strengths consolidated and built upon (Blatch 1993).

Despite the whole process being described by Daugherty (1989b p299) as 'crucial in shaping the geography curriculum of every school pupil from 5 to 16 for years to come', the final report (DES 1990) was felt to hinder attempts at progression. The Chairman of the working group, Sir Leslie Fielding, stated that in trying to ensure progression 'in a content-rich subject like geography', establishing a curriculum with clear progression 'is far more difficult than in a reasoning subject like maths' (cited in Graves et al 1990a p147). The final report (DES 1990) appeared to make no more than a superficial attempt to integrate progression into the National Curriculum. Citing recommendations from the Task Group on Assessing and Testing as justification for this superficial coverage of progression, the report concluded that (in some circumstances) the 'sequence of learning' should be left to 'those formulating the curriculum' (DES 1990 p12). Indeed Graves et al (1990a) particularly criticised the attempt to build in progression through 'the accumulation of discrete content at successive levels' (p150) while little attention was being paid to gaining progression through developing concepts, skills and ideas. Progression from one level to another could be achieved by simply changing the content studied, although some commentators did perceive the chance to develop a scheme of work that combined thematic and areal approaches in a spiral curriculum, building upon understanding and skills already acquired and on greater knowledge and a wider appreciation of place (Herrington 1994).

Unfortunately, while Bennetts (1995a) and others contended that the National Curriculum would advance continuity and progression, the evidence prior to the Dearing reform of the National Curriculum (Dearing 1994) did not substantiate these hopes. This was especially the case with respect to continuity and progression between Key Stages 2 and 3. In citing Fry and Schofield's (1993) survey of Year 7 geography, Marsden (1997) concluded that 'detailed liaison between departments was not generally given priority by secondary schools who were preoccupied with the amount of work needed to get the new Key Stage 3 courses off the ground' (p68). Despite the National Curriculum, primary teachers reported 'that secondary schools more or less had to start up from scratch' (p68).

Such dismal conclusions were supported by Ofsted's findings in its review of the second year of the Geography National Curriculum. It concluded that:

> 'There was little evidence of co-operation between schools in different phases. In only about 10 per cent of the primary schools visited had there been some discussion between them and the geography departments in the secondary school to which most of the pupils proceeded' (Ofsted 1993 p 13).

Continuity and Progression Following the Dearing Reforms of the Geography National Curriculum

The revision of the National Curriculum through the Dearing reforms of 1994 (Dearing 1994) attempted to reduced overload and hence encourage further opportunities for continuity and progression. The draft proposals for the new curriculum confidently stated

that ‘Progress has been secured across the Key Stages in terms of breadth of studies, depth of studies and complexity of concepts, an increase in the range of spatial scales of what is studied and a continuing development of a widening range of increasingly complex skills’ (SCAA 1994, cited in Williams 1997 p61). Indeed the draft proposals (cited in Bennetts 1996) listed a number of areas where pupils would progress within the key stage. These included:

- A greater breadth of knowledge
- A wider use of geographical vocabulary
- A greater appreciation of the interactions between physical and human processes
- An ability to apply geographical knowledge and understanding to unfamiliar contexts

This did contrast, however, with the views of Martin (1993), who advocated that Key Stage specific progression plans ignored the fact that Year 7 pupils would arrive with different levels of achievement which had to be taken account of before trying to build in progression into a Key Stage 3 scheme of work.

In considering progression at Key Stage 2 specifically, Waters (1998 p58) suggested that ‘the implied depth and complexity of ideas built into the study of both localities, and in the much wider range of themes to be covered during Key Stage 2, is further evidence of a progressive model of geographical learning in terms of its breadth and depth of knowledge and understanding’. Once more, progression was envisaged as an increasing

scale of places studied, the introduction of more complex skills, the ability to use increasingly specific geographical vocabulary (Jackson 1998, Marsden 1998b) as well as 'an increasing ability to apply reason and explain geographical conditions and relationships' (Waters 1998 p59).

Level descriptions were now to be used in a best-fit format to assess a pupil's attainment at the end of each Key Stage. Battersby (1995 p58) commented that 'they were written in such a way as to represent progression in terms of the pupils' ability to show their knowledge, understanding and skills at a widening range of scales and geographical contexts'.

Despite this confident assertion, little progress appeared to have been made. In their contribution to the review process of the Geography National Curriculum, the Geographical Association suggested that the statements of attainment represented 'inaccurate markers of progression...too detailed and too prescriptive to provide a manageable basis for assessment' (Geographical Association 1994 p16). Indeed in an interim report on the National Curriculum, Dearing (1993 p40) had acknowledged a problem with trying to use statements of attainment, as learning was 'not necessarily linear' and that 'the statements of attainment lack precision' and as such were 'not a measure of progress'. Bennetts (1994b, 1994c) questioned how progression could be achieved when statements of attainment at one level did not build upon the learning of lower levels and how the general criteria adopted to explain progression within each Key Stage was not fully comparable to the level descriptions. In welcoming the removal of

overlap of content and, as a consequence, making progression more apparent, Carter (1994) suggested that level descriptions would facilitate progression much better if they were tied to conceptual understanding. Conversely, Rawling (1995) felt the introductory statements within each Key Stage programmes of study more clearly defined elements of progression and Butt (1995) considered the new level descriptions an improvement, but warned that the degree of interpretation required to assign a particular level to a pupil's attainment might not accurately reflect the progress of that pupil in geography.

Marsden (1997) observed that at the beginning of Year 7 'there is a suggestion not only of under-expectation about what primary students may have achieved, but also an over-expectation about what they are ready for' (p70). In conclusion, Marsden (1997) called for 'a recognition of where children are at the beginning of Year 7, as well as where they will be going at the end of year 9' (p70). Similar sentiments were expressed by Palmer (1994):

> 'Planning for the teaching of geography, like all subjects, must inevitably incorporate an understanding of what learners already know, that is, what they are bringing to the learning situation, and the related ability of a teacher to find this out and develop it' (Palmer 1994 p20).

Further supporting evidence of the dilatory development of continuity and progression is provided by Jones (1999) in a study of primary/secondary pyramid groups in Hampshire. The study concluded:

> 'The research confirms that relatively few schools in Hampshire are involved in active curriculum links for geography across the primary/secondary phase...students in

> secondary schools (especially those in Year 7) would benefit from a reconsideration of the continuity issue. This would help to facilitate a smoother transfer from Year 6 to Year 7' (Jones 1999 p8).

Thus, while continuity and progression had been deemed a desirable, if not necessary, aspect of the school geography curriculum, there would appear to have been little movement forward. Daugherty (1996) attempted to recognise this by asserting that progression had yet to be properly defined and any attempt to try and measure it would be nothing more than a 'rough estimate' (p209):

> 'Inherent in the very notion of a National Curriculum from 5 to 14 is the assumption that learners will progress, and the revised geography orders offer a variety of hints, some more obvious than others, as to how the older pupils' curriculum might be seen to be extending on what has gone before. If we are to avoid the worst of the former world of age-related syllabuses, with the repetition and lack of development which has been all too common, we will need to reflect upon, and to investigate, what it means to progress in learning geography. That challenge can be interpreted and acted upon in terms of epistemology, of pedagogy, of curriculum design and of assessment practice' (Daugherty 1996 p210).

Acknowledgement was made by Daugherty (1996) that official documents were now recognising the lack of understanding of progression. Indeed QCA in guidelines for conducting geographical enquiry conceded that 'Encouraging progression between Key Stages 2 and 3 is often problematic because pupils in primary schools have different experiences of geographical enquiry...It is difficult for secondary school geography departments to build on the variety of what has taken place beforehand. Ways of encouraging progression in geographical enquiry across the primary/secondary divide need to be considered' (QCA 1998c p45).

In trying to provide a benchmark for progression, QCA (1998a) defined their expectations of children's expected geographical knowledge, understanding and skills at the end of Key Stage 2, although such guidelines only mirrored previous guidelines provided by other commentators, such as Foley and Janikoun (1996). Nevertheless, QCA stated that:

> 'By the end of Key Stage 2 it is expected that most children will be able to:
> explain the physical and human characteristics of places and their similarities and differences;
> know the location of key places in the United Kingdom, Europe and the world;
> explain patterns of physical and human features;
> recognise how selected physical and human processes cause changes in the character of places and environments;
> describe how people can affect the environment and explain the different views held by people about an environmental change;
> undertake geographical investigations by asking and responding to questions and using a range of geographical enquiry skills, resources and their own observations' (QCA 1998a p13).

While such guidelines were obviously welcome in helping, for example, to report progress in geography on an annual basis (Jones 1999), Grimwade (1998) has stressed the difficulty that non-specialist geography teachers in primary schools may have in interpreting these guidelines as evidence for continued development of cross-phase links.

In a more significant and potentially innovative initiative, QCA also published a scheme of work for Key Stages 1 and 2 (QCA 1998b), which was revised and republished along with a similar document for Key Stage 3 in 2000 (QCA 2000a) to accommodate changes in the National Curriculum from September 2000. For the first time, primary teachers were presented with a template that could be adopted in its entirety, if so desired, as the geography curriculum for their primary school. The publication of such a scheme of work

acknowledged the difficulty that primary teachers had in interpreting and delivering the Geography National Curriculum. The extent to which primary schools adopted the scheme of work would be a critical factor in encouraging greater cross-phase liaison, as such a scheme of work reduced, for many primary school teachers, much of the perceived ambiguity and flexibility of interpretation of the geography order. QCA also attempted to provide further clarification of principles of progression (Figure 2.2). The teachers guide for Key Stages 1 and 2 (DfEE 1998) that accompanied the schemes provided a more detailed set of questions regarding progression (Figure 2.3). Despite the provision of these questions at both Key Stages 2 and 3, which did outline the principles of continuity and progression very well, little practical help was given within the schemes of work themselves to illustrate how these evaluative goals may be achieved. Significantly, the first unit of the Key Stage 3 scheme of work, "Making Connections" was designed as a bridging unit for pupils transferring from primary to secondary schools:

> 'Unit 1, "Making Connections" is designed to help transfer between Key Stage 2 and 3 by building on locality studies, pupils are likely to have carried out and encouraging pupils to talk about the work they have already done. Teachers will be able to use this unit to make a diagnostic assessment of what pupils know, understand and are able to do' (QCA 2000b p6).

Despite this exemplification of the unit, there was no reference to the desirability of greater cross-phase liaison between primary and secondary schools. Indeed, the publication of such a unit could be interpreted as acceptance that little liaison takes place, hence QCA's intervention.

Figure 2.2 Progression in Geography at Key Stage 3 (QCA 2000a p21)

Appendix 1: progression in geography

Some aspects of progression in geography at key stage 3

	From	To
Vocabulary	■ using a limited geographical vocabulary	→ ■ precise use of a wider range of vocabulary
Knowledge of places	■ geographical knowledge of some places	→ ■ understanding of a wider range of areas and links between them
Patterns and processes	■ describing geographical patterns and processes	→ ■ explaining geographical patterns and processes
Geographical thinking	■ participating in practical geographical activities	→ ■ building increasingly abstract models of real situations
Geographical explanation	■ explaining events and phenomena in terms of their own ideas	→ ■ explaining these in terms of accepted ideas or models
Investigation	■ unstructured exploration	→ ■ more systematic investigation
Map skills	■ using simple drawings, maps and diagrams to represent geographical information	→ ■ choosing and using a wide range of conventional maps, diagrams and graphs
Fieldwork	■ guided practical activities in the field	→ ■ working independently outside the classroom

Some questions to ask when planning for progression

- What is known about what pupils have already achieved at key stage 2 and how does this affect the pitch of early units?
- What ideas in geography depend on secure understanding of other ideas?
- How can units be sequenced so that earlier work lays the foundations for later work?
- Are there opportunities to revisit and reinforce the ideas pupils need to understand and which some will find difficult?
- When ideas are revisited or reinforced is it in a different context or using different activities?
- How are pupils who have some competence or expertise beyond the levels expected in particular years challenged?
- Is there sufficient challenge for pupils in year 7, year 8 and year 9?
- Are appropriate expectations made of pupils in their use of language, number and ICT?
- Does the programme present a coherent experience of geography for those who leave the subject at the end of year 9?
- Does the programme adequately prepare pupils who continue geography at key stage 4?

Figure 2.3 Evaluating Progression – Guidance in the Teachers' Guide for the Key Stages 1 and 2

QCA Schemes of Work (DfEE 1998 p20)

Evaluating the extent to which a Key Stage plan encourages progression in children's learning

- What is known about what children have already achieved when they enter the key stage and how does this affect the pitch of the early units?
- Which ideas in geography depend on secure understanding of other ideas?
- How can units be sequenced so that earlier work lays the foundation for later work?
- Are there opportunities for revisiting and reinforcing the ideas children need to understand and which some will find difficult?
- When ideas are revisited or reinforced is it in a different context or using different activities?
- How are children who have some competence or expertise beyond the levels expected in particular years challenged?

Evaluating the extent to which a scheme of work encourages progression in children's learning

How far do the school's key stage plans and units provide opportunities for children, as they move through Key Stages 1 and 2, to progress:

- from everyday language to increasingly precise use of geographical vocabulary?
- from personal geographical knowledge of a few areas to understanding a wider range of areas and links between them?
- from describing events and phenomena to explaining events and phenomena?
- from explaining phenomena in terms of their own ideas to explaining phenomena in terms of accepted ideas and models?
- from participating in practical geographical activities to building increasingly abstract models of real situations?
- from unstructured exploration to more systematic investigation of a question?
- from using simple drawings, maps and diagrams to represent and communicate geographical information to using more conventional, diagrams and graphs?
- from guided practical activities in the field to work more independently outside the classroom?

Cross-Phase Liaison Prior to the Introduction of the Geography National Curriculum

An inherent theme in the literature and advice published regarding achieving continuity and progression is the need for links between the primary and secondary phase. Such 'cross-phase liaison', as it has been termed, is not a new idea. In 1978 Bailey commented:

> 'In any school, whatever its academic achievements may be, the most important year is arguably the first year of intake...What arrangements are made to ensure that the first's year geography in this school relates to the geography which the new pupils have already learned elsewhere?' (Bailey 1978 p146).

Evidence can also be cited prior to Bailey's question. For example, reference to the value and need for such liaison had been recognised in the Plowden Report of 1967 (DESCACE 1967). A series of recommendations made in the report included the implementation of teacher training that developed both primary and secondary skills, greater contacts between primary and secondary teachers (for example the organisation of conferences for teachers from both phases) a progress folder completed by the primary school and forwarded to the secondary school and opportunities for primary schools to visit the secondary school.

A similar set of recommendations were made by the City of Charwell Educational Centre in 1975 (cited in Derricott 1985). Expanding upon the Plowden recommendations eight years earlier, this report called for increased staffing levels in primary schools to facilitate teacher release for liaison activities, the introduction of compulsory conferences between

primary and secondary school teachers, primary and secondary school pupils visiting each others respective classroom environments and primary and secondary teachers interchanging for limited periods of time.

Steed and Sudworth (1985) illustrated the obstacles to successful liaison through a series of interviews with primary and secondary teachers. The difficulty of establishing a common baseline, the number of feeder schools and scepticism over the way their subject was delivered at primary level were all cited as reasons for not pursuing liaison by secondary teachers. Meanwhile, having curriculum content dictated and not taking account of pupil assessment on transfer were common criticisms by primary teachers. Szpakowski (1985) in developing this theme with specific reference to geography drew attention to the perceived importance of certain subjects for liaison in preference to geography, the lack of resources, and the varying ways in which geography was delivered at secondary school. Meanwhile, Tickle (1985) cited differing traditions in primary and secondary school and in particular the change from spending up to 90% of time with one teacher at primary school to just 4.5% of time spent with a form tutor at secondary school.

Cross-Phase Liaison Following the Introduction of the Geography National Curriculum

Throughout the period prior to the introduction of the Geographical National Curriculum, the issue of liaison remained largely one of personal initiative. Even the Geographical Association made only cursory references to its importance (Geographical Association

1981). With the introduction of the National Curriculum, the Secretary of State for Education, Kenneth Clarke suggested that curricular liaison between schools would greatly improve and that 'all pupils in secondary schools should be building on the foundation established in primary schools' (Clarke 1992 p29). Indeed SCAA made such liaison a priority:

> '...the continuity of pupils educational experience can be significantly enhanced by the quality of professional links established between primary and secondary schools' (SCAA 1996 p4).
>
> 'It is important that Year 7 teachers know what pupils have been taught previously and how well they have achieved if teachers are to plan appropriately' (SCAA 1997 p9).

With regard to geography, Catling (1989 p100) regarded the National Curriculum as the opportunity 'to extend contact between primary and secondary schools' with secondary schools needing to take account of pupil expectations of the quality of geography that would be delivered at Key Stage 3. In a series of publications SCAA and its successor QCA have laid down guidelines to facilitate smooth transition from Key Stage 2 to Key Stage 3. Yet despite the assertion that 'the National Curriculum has provided a common and clearer framework within which records can be developed and passed on to secondary schools' (SCAA 1996 p6) the benefits to geographers have been negligible. It was stipulated that transfer reports passed from primary to secondary schools were to contain, at a minimum, Key Stage 2 teacher assessment levels and test results in English, mathematics and science. However, it was only suggested that primary and secondary schools agree on the level of detail to be included when recording pupils' attainments in the other National Curriculum subjects, while curriculum plans with approximate timings

spent on all National Curriculum subjects may be ‘beneficial to pass on’ (SCAA 1996 p7).

A year later in its guidance booklet ‘Making effective use of Key Stage 2 Assessments’ the non-core subjects merited mention only to state that ‘The final report to parents in Year 6 should give details about attainment in other subjects of the National Curriculum, describing pupils’ strengths and weaknesses in each subject’ (SCAA 1997 p10).

In 1998, QCA issued more general guidelines that included all National Curriculum subjects. In recognising that many Year 7 teachers receive no information about performance at Key Stage 2, they have to assume all pupils will be ‘starting from scratch’ (QCA 1998d). One of the key strategies identified for improving on this situation are meetings between schools:

> ‘Pupil progression and curriculum continuity can be improved as a result of meetings between teachers from Key Stage 2 and Key Stage 3 and within subject departments...The National Curriculum ...can be used to discuss pupils’ progress and identify the next steps in pupils’ learning. Effective liaison depends on teachers from primary and secondary schools developing a shared understanding of the standards set out in the National Curriculum...Discussion of pupils’ work from both Key Stages can enable teachers to reach agreement about the characteristics of work judged to be at a particular level...once a shared understanding of levels of attainment has been reached, the focus should be how to build upon mutual understanding of standards. This can involve joint curriculum planning and target setting for Key Stage 2 pupils transferring to Key Stage 3’(QCA 1998d p6-7).

Despite the changes to the statutory arrangements that occurred in 1988 reducing the need to teach the full programme of study in the Geography National Curriculum at Key Stages 1 and 2 (QCA 1998a), QCA still maintained the importance of cross-phase liaison:

> ‘In order to promote continuity in children’s learning across the primary years it is essential that all decisions about reducing the scope of the curriculum plans are taken by the whole school, as these could have far reaching effects on children’s progress across the key stage and subsequently in a later key stage. Curriculum continuity from year to year is vital if expectations are to be achieved, and if teachers are to have a realistic sense of children’s previous experiences and achievements on which to build.
>
> This is particularly important when children transfer from Key Stage 2 to Key Stage 3. When primary schools make use of the increased flexibility in teaching the six subjects, it is important that secondary schools are made aware of the work they can expect children to have covered from the Key Stage 2 programmes of study. In some subjects, for example history, drawing on content which secondary schools are required to cover at Key Stage 3 could lead to unnecessary duplication’ (QCA 1998a p7).

In addition to the official documentation, numerous geographical commentators have provided guidelines for encouraging cross-phase liaison. Grimwade (1995) encouraged teachers to consider the Key Stage 2 curriculum while planning a Key Stage 3 scheme of work. Morgan (1996) postulated that the National Curriculum ‘with improved record keeping and assessment procedures, will encourage a smoother transfer from primary to secondary than in the past’ (p8). The extent to which recording procedures were followed up to 1998, however, remains uncertain. Nevertheless, Morgan (1996) gives a range of examples of how liaison can be worked out in practice and can help to ‘break down barriers’ (p8). These include regular meetings, advice from the secondary specialist geography teacher to the non-specialist primary teacher, Year 6 and Year 7 teachers teach each others classes, joint fieldwork between Year 6 and 7 pupils, secondary teachers viewing topic work in primary schools and primary pupils visiting secondary geography departments. In addition, Morgan lists examples of information that should be passed on

from the primary school to the secondary geography department. In particular, information on:

> ‘localities in the UK studied in depth at KS1 and KS2
> localities overseas studied in depth at KS1 and KS2
> fieldwork undertaken beyond the school locality
> residential experience of fieldwork in the UK and abroad
> any geographical work that has been particularly significant for the class in question
> the last major unit of geographical work undertaken by the class before transfer’
>
> (Morgan 1996 p8).

Meanwhile Westaway and Rawling (1998) called upon textbook authors and publishers to do more in promoting links between Key Stages 2 and 3 by building upon the work down at primary school in their writing of exercises and tasks at Key Stage 3.

Examples of Cross-Phase Liaison

There have been documented examples of cross-phase liaison in geography. Burden (1992) reports how one school was changing its Year 7 work to be more like project work undertaken at Key Stage 2. Meanwhile Smith (1995) describes a project set up by staff and sixth formers at a secondary school where Year 6 pupils visited the secondary school and in conjunction with the sixth formers undertook a number of assignments. Such an initiative has been viewed as an opportunity for exchange of ideas and schemes of work, and breaking down the barriers to successful liaison. In recounting a successful liaison project in Buckinghamshire, Smyth (1993) describes how the establishment of a cluster

group in geography led to regular INSET meetings, sharing schemes of work and the exchange of a transfer document on pupil progress.

In quoting four examples of successful liaison, Williams (1997 p66) asserts that ‘many schools have established close relationships which contribute simultaneously to assisting pupils to make an easy transfer between schools and to building curriculum bridges in geographical education’. One secondary school organised a week-long residential fieldcourse with six feeder primary schools for all of the Year 6 pupils. Pupils were divided into groups representative of each of the primary schools and undertook a different fieldwork task each day. The primary and secondary teachers devised and supervised the work jointly and in so doing gained an appreciation of each other’s teaching methods. Year 6 pupils met not only their future teachers and peers but also gained some insight into the nature of secondary school geography. In a second example, primary school pupils visited the secondary school to use specialist geographical equipment. In another secondary school, pupils went into Year 6 lessons to help develop the map skills of the primary pupils, while in a fourth example, secondary school teachers ran one-day INSET courses for their primary colleagues. Williams was able to conclude that:

> ‘While these examples are merely illustrative of interesting practice, it is important to emphasize the need for any arrangements to become more than one-off happenings and for structures to be built to consolidate such links and to provide the basis for future development. From such activities, teachers should be able to learn more about the aims and objectives of geography teaching in the schools, teaching and learning strategies which are commonly employed in the feeder schools and the host secondary schools, and the modes of pupils assessment and record-keeping. Secondary school geography teachers are often unaware of such important aspects of their new pupils as

their fieldwork experience and skills and their IT experience and skills' (Williams 1997 p67).

An insight into the degree of liaison has been provided by Jones (1999) in a study of partner primary schools (termed 'pyramids') in Hampshire. The results of the research found that only 18 out of 58 pyramids had a regular curriculum link with regard to geography. Where meetings occurred the main focus of discussion was the curriculum and its assessment, inspections, visits and reports. A myriad of frustrations were listed including timing of meetings, time spent travelling to meetings, poor attendance and the low status given to meetings, a lack of focus on the agenda and the absence of a representative from the secondary school. Similar findings were also documented by Wilmut and Emery (1998) in a survey of 389 secondary schools. In particular, the large number of feeder primary schools and the variation in the quality of information received from them, were thought to hinder continuity and progression. As such overlap with the Key Stage 2 was thought to be inevitable. In monitoring a number of schools in various education authorities, Westaway (2001) concluded that liaison only occurred readily where an authority's structure included middle schools that taught the latter years of Key Stage 2 and the first years of the Key Stage 3 curriculum. In such authorities, middle schools have to liase with both primary and secondary schools to decide between them how to divide teaching within Key Stages.

Despite these frustrations, Jones (1999) is able to cite two examples of successful pyramids. In the first example, content was coordinated across the curriculum to avoid repetition and a common level marking scheme across the Key Stages introduced to aid

standardisation. In addition a glossary of common geographical terms has been produced with a view to aiding the non-specialist teacher. In the second example the pyramid had used an INSET day to produced a pack of resource materials on localities for use in Key Stages 1, 2 and 3. Additionally, the same pyramid established a bank of moderated work to represent progression through each Key Stage.

In outlining the main issues that need to be considered to foster successful links in geography, Jones (1999) identifies strong leadership, the support of headteachers, holding meetings within the school day and ensuring the presence of a secondary school representative. Jones concludes with six recommendations for good practice arising out of the Hampshire survey:

1. Primary and secondary headteachers involvement and continued support is a prerequisite for successful liaison
2. Secondary school heads of department must take an active role in encouraging liaison
3. Meetings between primary and secondary teachers must have a 'meaningful agenda'
4. Full understanding of the QCA guidelines and expectations for geography at the end of Key Stage 2 is necessary for achieving continuity
5. A greater degree of trust between primary and secondary teachers
6. Secondary school teachers should be aware of the quality of work and experience of primary school pupils and not expect to dictate the primary school curriculum in order to satisfy their own curriculum plans

A form of cross-phase liaison increasingly being seen as having potential for enhancing continuity and progression is that of ‘bridging’ or ‘linking’ projects. One such project has been established in Lincolnshire (Wood 2001). Based on a unit of work on journeys to school, the project is seen to have three distinct aims:

> ‘A progression of work on one topic from Key Stage 2 to Key Stage 3,
> the assessment of the work done in Year 6 used to inform the assessment made at the end of Year 7, and
> a wide skills base, including the use of information technology, group work, presentations and decision-making hence enriching the secondary curriculum experience’ (Wood 2001 p 40).

In its initial year, the Lincolnshire link project involved three secondary schools with eight feeder schools. In describing its success, Wood (2001) concludes that ‘the most significant benefit is that students do not have to make an entirely new start in their geography work in Year 7 and can clearly see elements of progression in the geography that they are studying’ (Wood 2001 p 42).

In responding to the curriculum pressures of Key Stages 2 and 3, a development of the linking project has been introduced by Cheshire LEA. Rather than confining the project to a subject specific initiative, three high schools and 20 partner primary schools trialled a new form of bridging project in 2001, where the focus was upon literacy, geography and history. Trialled for the first time in summer 2001, this bridging project is built around the study of a book by a local author (Thompson 2001). While the success of the project has yet to be evaluated, it may form a model for further cross-curricular linking projects.

Cross-Phase Liaison and Changes to the Statutory Requirements of the Geography National Curriculum

Following the statutory changes to the Geography National Curriculum in 1998, Grimwade (1998) suggests that Year 7 pupils 'will be arriving in secondary school with a more varied geographical experience' (p65), but encourages secondary teachers to 'resist the temptation to treat Year 7 as if they have never done geography before' and to 'renew your efforts at primary/secondary liaison' (p66). Included as suggestions for cross-phase liaison are:

- Sending curriculum plans to feeder primary schools
- Encouraging meetings with geography subject coordinators to help interpret the QCA guidelines laid out in the publication 'Maintaining Breadth and Balance' (QCA 1998a)
- Help primary colleagues in devising ways of integrating literacy and numeracy into geography and in identifying cross-curricular links
- Plan a joint project to start in Year 6 and complete in Year 7

Although Grimwade (1998) and Jones (1999) were encouraging cross-phase liaison in the light of changing statutory requirements, Walford (1998) perceived all the hard work of developing links between primary and secondary schools in geography as being 'devalued' by the changes. Walford concludes that 'Because of a lack of certainty about what can be assumed from Key Stage 2, geography and history teachers in secondary

schools may well have to go back to the old position of assuming that the primary schools have taught nothing. This will clearly have adverse effects on the secondary curriculum' (Walford 1998 p63).

Cross-Phase Liaison in Geography – A Conclusion

Coherence between Key Stages is considered to be essential for the well-being of the geography. Yet Carter (1999a) considers the primary-secondary interface to be especially weak. The design of the National Curriculum 'means that it is capable of as many different interpretations as there are teachers' (p289), although the publication of QCA schemes of work may standardise interpretations. In contrasts to Walford's comments (1998), Carter (1999a) asserts that 'It is unacceptable to assume they [Year 7 pupils] know nothing', citing the Ofsted report 'Standards and Quality in Education 1996-1997' (Ofsted 1998a) that geography teachers begin their teaching at Key Stage 3 from too low a base. In recommending that 'geography teachers need to improve their knowledge of the experiences and prior learning of pupils in their primary schools', the Ofsted report 'Standards in the Secondary Curriculum 1997-1998' (Ofsted 1999a p4) acknowledged, if acknowledgement was necessary, that little progress had been made in the area of cross-phase liaison in geography since the introduction of the National Curriculum.

General Considerations with Regard to Cross-Phase Liaison

It is, however, important to set cross-phase liaison, curriculum continuity and progression in geography in the context of transfer and transition issues in general. These include,

greater parental choice at primary and secondary level (resulting in enlarged catchment areas), competition between schools, assumptions made by secondary school teachers regarding primary school education and a lack of supporting structures to facilitate smooth transfer, such as financial and curriculum pressures (Doyle and Herrington 1998, Galton et al 1999). In reporting the findings of a survey of 215 secondary schools, Galton et al (1999) drew attention to dearth of liaison activities between schools in general. While all schools followed programme of induction days, parents evenings and involvement of heads of years, only 20% had staff teaching lessons in feeder schools, 10% undertaking joint projects, and even smaller numbers participating in summer schools, joint teaching programmes and extended induction programmes.
Thus, discussion of cross-phase liaison in geography requires an appreciation of the lack of consideration given to issues of transfer from primary to secondary school in general.

In a series of recommendations regarding strategies that could be used Galton et al (1999) highlighted the following innovations as possible ways forward:

- Projects started in Year 6 and completed in Year 7.
- Secondary school pupils giving talks to Year 6 pupils.
- New subjects give taster sessions to Year 6 pupils
- Summer schools for the whole year group in particular subjects
- Newsletters written by Year 7 pupils for Year 6 pupils
- Extended induction sessions where Year 6 pupils spend more time in secondary school and meet pupils from Years 7,8,9 and 10.

- Primary and secondary teachers meet regularly to work on assessment and carry teaching observation
- The devising of a common computer linked record of pupils' progress
- Tracking of most able pupils in the first term to ensure they are being stretched.

Meanwhile, Richards (2000) has postulated beginning Key Stage 3 at age 10 to force secondary schools into discussing how to divide up the teaching which could well enhance continuity and progression as has been observed in geography where pupils transfer from middle schools (Westaway 2001). In addition, Richards (2000) calls for the extension of national strategies at primary school level to all subjects and the following of a timetable that is different in structure for the first half term in Year 7 to allow more gradual adjustment to the secondary school surroundings and new teaching styles.

While these recommendations are subject non-specific, their similarity with liaison activities postulated for geography implies that whole-school issues will be an inherent part of any attempts to introduce or improve cross-phase liaison. In considering the broad school picture, efforts at improving continuity and progression between Key Stages 2 and 3 in other subjects will need to be taken into account. It is, therefore, apposite to consider with what success other subjects have been able to gain continuity and progression between Key Stages 2 and 3.

Continuity, Progression and Cross-Phase Liaison in Other National Curriculum Subjects

Defining progression in subjects other than geography also appears problematic (Sorsby 1995). Nevertheless, the principles of progression manifest a broad similarity to those recommended for the geography curriculum. In science, for example, Sorsby (1995) has defined progression in the following way:

> 'Progression in science is concerned with an individual's increasing depth of understanding of science concepts and the procedures of science within an ever widening framework of contexts. This increasing understanding can be seen when a pupil's simple ideas are replaced by more complex ones and these have greater power in that they explain more scientific phenomena and/or are enable the individual to have greater control and insight into the investigative procedures of science' (Sorsby 1995 p111).

The History National Curriculum, as an example from a foundation subject other than geography, has attracted similar criticism to that of geography. Too much content, a lack of time to deliver the content, and, in the earlier versions of the National Curriculum, the difficulty of achieving progression through statements of attainment are common to both subjects (Watts and Grosvenor 1995). Advocating that progression should be measured 'in how far pupils will be able to formulate their own questions and answer on their sophisticated level without structured help' (p25) Watts and Grosvenor (1995) defined how pupils could progress in history. This included:

15. an increased understanding of historical terminology

16. the studying of history within a deeper and wider framework of knowledge
17. the use of more complex primary and secondary sources
18. having regular feedback to enable further progress to be made.

Achieving continuity and progression between the primary and secondary phases has been difficult for other subject areas, as well as geography. In the core subjects, research has focused upon the performance of pupils in the early part of Key Stage 3.

In providing evidence for a retardation in progress at the beginning of Key Stage 3 in numeracy and literacy, Hargreaves and Galton (1999) tested 300 pupils in mathematics, English and science in Year 6 and repeated the test in Year 7. Significant numbers of these pupils (mathematics 35%, English language 42%, reading 39%) performed less well on the same test one year after transfer. Supporting evidence to these findings was provided in a QCA study of progress in English (QCA 1999a), in particular, spelling, punctuation, reading and writing. The study found there was a dip in the level of performance in each of these areas around Year 7, with lower ability pupils found to underperform the most.

While the QCA survey concluded that a strong causal factor in these findings was the transfer to secondary school, Butt (2001) and Galton et al (1999) identified a number of general factors that contributed to this ‘Key Stage 3 dip’. These included:

19. The difficulty of adjusting to a new school environment
20. Pupils find themselves repeating work and are thus prone to boredom
21. Uncertainty regarding the expectations of teachers
22. Lack of trust in achievements of primary school pupils and desire for a fresh start
23. The use of non-specialist teachers at Key Stage 3
24. Disaffection among pupils and lack of challenge in subjects studied at Key Stage 3
25. Difficulties of personal organisation with increased numbers of subjects
26. The intervening long summer break before transfer to a new school.

While concurring with these findings, Pringle and Cobb (1999) suggest the taking of SATs in the core subjects and publishing of results at the end of key stages may concentrate pupils minds at age 11 and unintentionally weaken the focus given to their studies at the beginning of Year 7.

With regard to English and mathematics specifically, Galton et al (1999) suggest that the emphasis placed by secondary school teachers on responding to literature differs from a primary school focus on literary skills. Meanwhile in mathematics, the majority of secondary school teachers prefer to ‘start from scratch’.

In the other core subject, science, pupil disengagement appears to be particularly acute. According to Galton et al (1999) this reflects, in part, the high expectations pupils have of science on entering Year 7, often only to be met with a lack of enquiry, experimental based learning. In classroom observations, pupils in science were seen to experience the greatest drop in interest from Key Stage 2, with 61% of pupils being described as being fully engaged for 75% at primary school, compared to 35% after transferring to secondary school. (This compares to a 2% drop in English and 11% drop in mathematics.) Such findings were reinforcing results from an earlier study in Kent (Doyle and Herrington 1998) and were supported by a Times Educational Supplement (TES) editorial in April 2000 and Cassidy (1999) citing Ofsted evidence where science teachers were not challenging Year 7 pupils, with experimental science in particular receiving a low priority at Key Stage 3.

Assumptions regarding the ability of pupils in science are significant within this context. In a survey of 51 primary schools and 9 secondary schools in four LEAs, Peacock (1999) found that Key Stage 3 science teachers felt that they could not trust their primary colleagues. Little notice was taken of records transferred in the subject, again questioning the validity of such documentation. Peacock's research confirmed the findings of Ofsted whose 1995-1996 inspection findings suggested secondary schools did not take sufficient account of pupils' science curriculum in primary school (Ponchaud 1997, Thornton 1999). Indeed, during the organisation of a pupil-teacher conference where Year 6 pupils met with heads of science from secondary schools in Gloucestershire, Gunnell (1999) reported that heads of science had not appreciated the enthusiasm of Year 6 pupils for

science, or the levels of ability of many pupils. Participating heads of science at the conference agreed to review and change the Key Stage 3 scheme of work and raise expectations of incoming Year 7 pupils.

Duplication of work undertaken in Key Stage 2 at Key Stage 3 in science was highlighted by Balbir (1999), Chapman (1995), Peacock (1999) and Ponchaud (1997). Indeed Peacock's research found numerous examples of primary schools teaching material exclusive to Key Stage 3 science. Meanwhile, Ponchaud (2000), in reviewing a HMI report on key issues in science in 1999, highlighted the need for teachers to be aware of the context in which science is taught in primary schools, to ensure curriculum planning takes account of what happened at Key Stage 2, and that expectations of pupils' science knowledge are high at the beginning of Key Stage 3.

Despite the rather negative findings regarding pupil performance after transfer from primary school, and the apparent lack of curriculum continuity, strategies have been introduced to improve the situation. Most notable among these is the government's own literacy, numeracy and science teaching strategies, piloted from September 2000 to improve core subject teaching in the early years of secondary school (Cassidy 2000).

In suggesting strategies to enhance science department primary liaison Balbir (1999) includes INSET for feeder schools, organisation of joint science trips, meetings to discuss the science curriculum, interpretation of level descriptions and practical investigations as well as feedback to primary schools on the progress of individual students in science.

With striking similarity to recommendations of Jones (1999) in geography, Balbir (1999) stresses the importance of an effective whole school framework for liaison, actively supported by a member of the senior management team.

In response to inspection evidence showing ‘a pronounced dip in pupils’ performance in mathematics after they transfer from primary to secondary school’ (QCA 2000c p4) QCA introduced two bridging units in with the specific aim of improving curriculum continuity and progression between Years 6 and 7. Designed as a two week primary school and a two week secondary school course tied to the National Numeracy Strategy, QCA concluded that primary and secondary school teachers could ‘work together to plan the curriculum and develop a shared understanding of standards’ (QCA 2000c p 4).

In an initiative organised by the Sandwell Education Business Partnership, primary and secondary mathematics teachers were brought together to discuss and observe pupils’ performance in their respective schools (Hall 2000). The conclusions derived from this initiative centred around standardising and interpreting pupil data between the two phases, reviewing Year 7 schemes in the light of experience, and that the most effective liaison activity in future was visiting each others’ classrooms. A similar bridging unit was observed in action by Peacock (1999), where pupils in a primary and secondary school were undertaking a joint piece of investigative work in science.

The dilatory progress of improving continuity and progression between Key Stages 2 and 3 in the core subjects suggests that geography is not unusual in this respect. The

introduction, however, of government initiatives designed to specifically improve this situation, however, may result in a greater focus on the transfer between primary and secondary schools in the core subjects. In other foundation subjects, however, the focus would appear to remain very much on teacher initiative. This can be illustrated by reference to history.

Despite assertions that the History National Curriculum, like its geography counterpart, would improve cross-phase liaison, the evidence from the first few years of its introduction was that little took place (Bardwell 1995). Reasons cited for this included the number of primary feeder schools, the time to carry out liaison activities and the lack of enthusiasm from heads of history departments in secondary schools. In addition, Bardwell (1995) identified a number of obstacles to effective cross-phase liaison. In particular, the lack of a clear focus for collaboration. Rather than discussing ways in which children learn history and ways in which standards of work could be judged, most cross-phase linkages have concentrated on study units and the content taught in respective phases. A lack of relevant INSET and support documentation focusing on cross-phase liaison were also considered inhibitive to fostering better continuity and progression.

In seeking to promote more active cross-phase liaison, Bardwell (1995) suggested the exchange of documentation between primary and secondary schools, along the same lines as Morgan (1996) has done for geography. Documentation could include information on topics studied, the year and depth of study, the nature of the history teaching, any visits

undertaken to historical sites, the usage of ICT and the sources and interpretations of those sources that have been used. While recognising that such paper exchanges were no substitute for personal contact, Bardwell (1995) concluded that this represented the best form of liaison as 'given the emphasis on the core subjects, history is not likely to figure high on schools' agendas for access to meeting time, INSET and resources' (p55).

Conclusion

Continuity and progression have been viewed as a necessary part of curriculum design well before the introduction of the National Curriculum. Following the introduction of the National Curriculum, numerous guidelines have been issued on how progression may be achieved, the principles of progression and the desirability of curriculum continuity.

A difficulty apparent from a review of the literary sources is the ability to define satisfactorily continuity and progression. While it is possible to identify common elements that are cited as being integral to achieving continuity and progression, arriving at a common definition has proved problematic.

This has been illustrated through the way in which progression has been treated since the introduction of the Geography National Curriculum. Inherent in the design of the National Curriculum was the notion that continuity and progression could be enhanced, although many commentators questioned the extent to which early versions of the National Curriculum achieved this. The initial content rich curriculum where progression

was tied to levels of attainment (themselves being content based) received much criticism (Graves et al 1990). The content biased original Geography National Curriculum meant that progression was (and still is) viewed by many teachers in terms of content. The key focus being the nature of the content and the way and frequency with which similar themes were revisited as pupils moved through and between Key Stages. It is for this reason that the aspect of progression explored by this thesis is that of progression in content. Such an approach was consistent with teacher perceptions and those of the researcher at the outset of the research process.

The issue progression in terms of content has been a key aspect of work undertaken on continuity and progression between Key Stages 2 and 3. With content receiving such a high priority, it is clear that for continuity and progression to be effective across the primary-secondary divide cross-phase liaison must be deemed desirable if not essential. With commentators such as Morgan (1996) and SCAA (1997) focusing on the importance of content in achieving better continuity and progression between Key Stages 2 and 3, the importance of studying the extent and nature of cross-phase liaison as an integral part of this research becomes apparent.

There are, however, limitations to adopting a content-based view of progression. While content is considered a key aspect of any exposition of continuity and progression, numerous other elements have been suggested by various commentators as integral to the concept of progression, for example Bennetts (1981), DES (1986), Marsden (1997), Waters (1998). Progression, therefore, could be considered in a variety of ways. Later

expositions of progression such as those provided by QCA (QCA 2000a), for example, focused more on aspects of geographical education that may be developed to ensure a child's progress in the subject. Other possible viewpoints include consideration of the breadth, depth and scale of study, learning theories, the increasing use of 'Thinking Skills' (Leat 1998) and development of progression through examination practice (Bennetts 2001). With such diversity, stipulating how progression is achieved, even illustrating progression through or between Key Stages could be difficult. It is, therefore, important that this difficulty is considered during the undertaking and reporting of research into continuity and progression in geography.

Despite the difficulties of defining continuity and progression, it would be expected that all schools, at primary and secondary level, designed the delivery of their subject to account for progression and continuity. It is, therefore, a central aspect to this research to establish the degree to which schools have integrated continuity and progression into their schemes of work.

The National Curriculum is also perceived as promoting continuity and progression across the key phases, including Key Stage 2 and 3. To date, this has remained an exceptionally weak link in the Geography National Curriculum (Carter 1999a) as indeed it has in other National Curriculum subjects. For continuity and progression to be enhanced across these key stages, cross-phase liaison needs to be effective. While there is limited evidence of cross-phase liaison in geography and other subject areas, there are guidelines as to the nature of activities that could take place. It is, therefore, intended to

establish the nature of cross-phase liaison taking place, what teachers feel is practicable and what activities may provide the most productive way to enhance continuity and progression across Key Stages 2 and 3.

Chapter 3

RESEARCH METHODOLOGY

Research in Education

Research in education has often been the subject of criticism by teachers, educationalists and researchers themselves. As Kent et al (1996 p289) observe, 'research in geography education is sometimes thought to be problematic and open to critique'. Indeed the findings of educational researchers have often been 'deliberately ignored' (Naish 1993b p64) by the very people who are responsible for decision making in education. Even classroom practitioners have a guarded view of the value of research, a large majority failing to see the applicability of educational research in the classroom. In support of this viewpoint, Kent et al (1996 p289) assert that 'teachers tend to be sceptical of the value of research and have too little time to take note of it, especially when what is published is in relatively inaccessible journals or books'. Yet research in geographical education is important (Purnell 1993). Summarising the need for research in geography education,

Benejam (1993 p81) argues its necessity ‘because we want geography to be taught better than it is in order that it can be learned better than it is’. Indeed, quite simply, ‘research is tackled because of the need to know’ (McElroy 1993 p66).

One of the key aims of much of the research carried out within education is to question and improve classroom practice. In order to provide meaningful or ‘quality’ (Naish 1993b p 64) research in geographical education, McElroy (1993 p66) argues that the research must be grounded in ‘accepted research procedures’. Knowledge created through the research process should be clearly attributed to one of three broadly defined paradigms; the empiricist - involving the collection of evidence in a dispassionate and detached way; the interpretive – where knowledge is ‘constructed by mutual agreement’ and assumed to be subjective in nature; and the critical – which overlaps with the interpretive in many ways but accepts that ‘knowledge cannot be value free’ (McElroy 1993 p67). The importance of setting the research within an appropriate paradigm avoids unnecessary criticism from proponents of other paradigms not relevant to the particular research one is pursuing.

In order to clearly illustrate what a piece of research is attempting, why and how it will be carried out, McElroy (1993) recommends as essential elements of any piece of research:

- A clear statement of the research problem
- An explanation and justification of the approach of the study
- Where the research sits within current paradigms

- Illustrate the context of the study
- A justification of the research design, methodology and techniques of analysis
- A statement of the limitations of the research
- An acknowledgement of the degree of researcher involvement
- An acknowledgement of vested interests in the research
- An explanation of how ethical issues were dealt with during the research.

To ensure, therefore, that the research undertaken is of high quality, each of the above elements need to be addressed in some way.

Methodological Research Traditions

Slater (1996 p293) has observed the increasing tendency for educational research to be classified 'according to its ideological/methodological stance'. In particular, research has been frequently conducted within the quantitative or scientific approach, or the qualitative or interpretive tradition.

Quantitative or scientific research aims to understand relationships between variables, based on hypothesis formulation and testing. Such an approach necessitates phenomena being observed, recorded, classified and interpreted. Boardman (1993) adopts the following definition for quantitative research:

> 'Quantitative research is usually described as 'hard' research which uses rigorous methods of data collection and analysis, resulting in 'objective' findings. Research of

> this kind tests preconceived hypotheses already deduced from a known body of theory. The data collected are normally analysed for statistical significance in order to verify, modify or reject the hypotheses' (Boardman 1993 p85).

Whilst Slater (1996) describes the philosophy of quantitative ('positivist') research in the following way:

> 'Positivist researchers seek, systematically, critically and self-critically, to describe and explain phenomena which they take to be out there in reality and which therefore they can study without disturbing. One positivist researcher will have the same perceptions of phenomena as another' (Slater 1996 p295).

In conducting a scientific piece of research, the problem must be first recognised, defined and then hypotheses formulated which then facilitates data collection using appropriate techniques and analysis, culminating in the drawing of conclusions (Williams 1996). The use of positivist techniques within research is seen as an opportunity to be objective and value-free. As Boardman (1993 p85) stresses, however, educational research involves teachers and pupils, which necessitates treating cautiously 'claims of rigour and objectivity'.

By contrast qualitative techniques are very different. Boardman (1993) describes qualitative research as:

> '"soft," "subjective" or "less rigorous". Instead of testing hypotheses it aims to explore situations with a view to describing, explaining or illuminating them. It believes in giving maximum flexibility to people when they agree to participate in research. Questionnaires, for example, will be largely free-response, and interviews will be semi-structured or unstructured, giving respondents plenty of scope to answer in their own way' (Boardman 1993 p85).

Gerber et al (1995) argue that when researching a teacher's experience of change, this cannot be done without considering the context in which the teacher experiences that change. Qualitative analyses are often inductive in approach, in that theories are formed through discussions with participants (Corney 1996). The strong human dimension to qualitative research is seen as a strength as it avoids use of statistics that could be considered superficial. In supporting this viewpoint, Slater (1996) comments:

> 'Interpretive researchers seek systematically, critically and self-critically, to describe and interpret phenomena which they take to be in the same world that they inhabit and which therefore may be disturbed when they try to investigate it' (Slater 1996 p295).

Qualitative researchers aim to study all factors present within the setting in which the research is taking place. Techniques employed by qualitative researchers focus on seeking similarities and differences in the experience of phenomena. Gerber (1996) suggests that researchers work with participants in an attempt to reconstruct their experience of phenomena. This is usually in the form of interviews, which are conducted with an open agenda, although not all interviews will be conducted in this fashion. Parameters are not strictly defined prior to the start of the research, as frequently the design of the research project emerges as the study progresses. Such approaches have led to an emphasis on the development of 'grounded theory' within the qualitative tradition. Tilbury and Walford (1996 p51) define grounded theory as 'theories grounded in data generated through the research act and not developed before or after data analysis'. Such research has the clear advantage of evolving as the nature of the issues under study becomes apparent, although it does require an open research design given that the variables involved only emerge as the study progresses.

In addition to the quantitative and interpretive traditions, there has been a greater emphasis on 'action research'. Slater (1996 p296) describes action researchers as seeking 'systematically, critically and self-critically, to describe and interpret the phenomena of the action in which they are engaged, in order to improve it'. Action researchers aim to gain an understanding of educational practice through being a part of their research, and as a consequence of their studies bring about improvement in the educational process. The teacher not only teaches but researches simultaneously. Naish (1996) defines action research in the following terms:

> 'Educational action research is research undertaken by the practising teacher as a response to an issue or problem that is a matter of concern to that teacher. The purpose of undertaking the research is to try to get at the nature of the issue or problem, to explore its roots and causes and to plan and implement possible ways and means of dealing with it. The effects of dealing with these ways and means are then evaluated and this may lead on to further attempts to refine the action, further reflection on the issue or problem and so on. Thus one could say that the basic characteristics are that it is undertaken by the practitioner and is mainly concerned to produce an effective action plan to deal with a situation or condition' (Naish 1996 p322).

Any attempt at defining action research is difficult, as it can take a variety of forms. In suggesting eight situations where action research may be used, Cohen and Manion (1994 p188) conclude that action research can be appropriately used in 'almost any setting...where a problem involving people, tasks and procedures cries out for solution, or where some change of feature results in a more desirable outcome'.

Despite the clearly defined standpoints in the various research traditions, there has been a growing acceptance of the mixing of methodologies. Boardman (1993 p86) asserts that

'quantitative and qualitative approaches are best seen as complementary rather than different' and 'that a combination of quantitative and qualitative approaches is likely to prove the most productive' (p87). Slater (1996 p297) citing Bell (1993) reminds us that 'no approach prescribes nor rejects any particular methods'. Indeed Slater (1996 p314) calls for the establishment of a new 'mixed-frame' research tradition where there is 'a fusion of scientific, interpretative and action research traditions'. As Slater (1996) concludes in a resume of the different research traditions:

> 'Our frameworks dissolve and reform as we wish, as we develop and as we learn to evolve traditions and meanings for different purposes' (Slater 1996 p315).

Aims and Objectives of the Research

The key research question under investigation in this thesis is:

'To what extent is continuity and progression occurring within and between Key Stages 2 and 3 in geography?'

Chapter 2 documented the need for geography, and other subjects, to have a school curriculum where pupils experienced continuity as they moved through primary school and into secondary school as well as building upon what they had learnt previously. Inherent in such writings was the need for liaison between primary and secondary schools. The desirability of achieving, and the principles of, continuity and progression set out in Chapter 2 need to be researched in the school environment. While many commentators have identified key aspects of continuity and progression that should

characterise the geography curriculum, little work has been undertaken to establish if continuity and progression is planned for and what form it takes in primary and secondary schools. By consideration of this key question, it is possible to provide a valuable insight into current practice and how current practice may be improved, in particular at the primary-secondary interface.

In undertaking research to answer this question, other questions and issues relevant to this topic will require consideration. An integral part of this research, for example, is to assess the degree and nature of cross-phase liaison taking place between Key Stages 2 and 3.

In order to address the key research question and additional issues, it was necessary to consider the geographical content that was being delivered in primary and secondary schools, and the degree of continuity and progression within Key Stages 2 and 3 as well as between the primary and secondary phase. As a prerequisite to this investigation, an understanding of the principles of continuity and progression were required (see Chapter 2) as well as documenting how the subject of geography has developed within the context of the primary and secondary school curriculum (see Chapter 1).

The principles of curriculum design, as well as practicalities of the way in which geography is delivered were also considered essential elements to this research. In particular, how geography is taught in each key stage and how secondary schools respond to the experience of the pupils they receive in Year 7, and indeed throughout Key Stage 3, in terms of their delivery of the National Curriculum. As Jones (1999) has pointed out, ‘Year 6 teachers occasionally talk of despair when students, on visiting their former

primary school, tell the teachers they are yet to cover new work in geography after their first term at secondary school' (p6).

In addition, information needed to be gathered on what format current links are taking, given the suggested guidance of the nature of liaison. Where such links do not exist (or only exist in part) it is necessary to ascertain why secondary and primary teachers feel unable to establish them. Cooperation and coordination between primary and secondary schools is desirable to ensure continuity and progression and to avoid unnecessary repetition of material. The variables that influence the degree of cooperation are many, but if future practice is to be improved it is essential to determine the main obstacles, perceived or otherwise, to increasing liaison.

It was also necessary to conduct the research against a historical background that included a review of previous attempts to enhance continuity and progression in the geography curriculum and greater cross-phase liaison between primary and secondary schools in geography. This was made possible through the use of literary sources including publications from the government and other National Curriculum subjects (as documented in Chapter 2).

The research also provided the opportunity to assess how the announcement on 13 January 1998 by the Secretary of State for Education that primary schools would no longer need to fulfil the requirements of the National Curriculum in the non-core subjects until its reintroduction in September 2000 had affected the delivery of geography in Key

Stage 2. Many commentators at the time of this statement, and later, (for example Grimwade 1998, Marsden 1998a, Rawling 2000a, Walford 1998), expressed concern for the delivery of geography at primary school. It was, therefore, important to assess how far this statement was true and to what extent primary schools had reduced or changed the delivery of geography at Key Stage 2.

Ultimately, it is the Year 7 pupil who can judge the effectiveness of continuity and progression, both in the geography curriculum and between schools. As Chapter 2 illustrated, the benefits of a spiral curriculum where key concepts are revisited to build on past experience are seen as a key element of progression. Yet what is the response in the classroom where some pupils have knowledge of the subject matter and others do not? Is it necessarily inappropriate for pupils to revisit the same material they have covered in their primary school? The response of pupils to the teaching and learning of familiar and unfamiliar material was considered to be as important as ascertaining the current extent of continuity, progression and cross-phase liaison.

In order to achieve these aims, it was clear that various methods of data gathering would be required. Data needed to be gathered at a holistic level but equally important were the individual studies of a qualitative nature that would provide a detailed insight into the issues raised from the broader perspective. Thus, questionnaire surveys at a regional level, supported by individual in depth case study interviews of primary and secondary school geography coordinators, and subject advisors were used to gather the necessary data.

Questionnaire Survey

The initial data gathering was undertaken by way of a questionnaire survey, which had first been trialled in ten schools (both primary and secondary). Questionnaire surveys have been acknowledged as one of the most frequently used methods to gather data in geographical education and educational research in general (Cohen and Manion 1994, Stimpson 1996). Gathering data at a particular point in time, such surveys enable the researcher to assess the existing conditions as well as providing data for further investigation. Questionnaire surveys have the considerable advantage of low cost and the avoidance of face-to-face contact (which is difficult where a large sample is being targeted and might immediately influence the respondent). In short, questionnaire surveys provide a method of collecting data in an identical format for all targeted recipients.

Yet despite the significant advantages of questionnaire surveys, this method of data collection possesses inherent disadvantages. Although sending a uniform document, the responses of targeted individuals or institutions may vary considerably. One respondent may, for example, answer all the questions in strict numerical order while another will read all the survey prior to answering the questions. Such subtle differences in approach may, according to Stimpson (1996 p125) ‘affect the content validity of the results’. The nature of wording, the style of questioning and the need to avoid ambiguity all necessitate

careful survey design. Cohen and Manion (1994) cite Davidson (1970) in describing an ideal questionnaire as being:

> 'clear, unambiguous and uniformly workable. Its design must minimise potential errors from respondents...and coders. And since people's participation in surveys is voluntary, a questionnaire has to help in engaging their interest, encouraging their cooperation, and eliciting answers as close as possible to the truth' (Davidson, 1970 cited in Cohen and Manion 1994 p93).

By implication, therefore, the design of the survey is paramount to its success as a research tool. The visual impact a questionnaire gives the respondent must encourage not discourage. A page of high text density, for example, may elucidate a negative response. Clear, unambiguous instructions also create a positive framework for the respondent. The overall structure of the questionnaire is important as well, proceeding from questions that are simple, yet of interest, to more difficult questions which retain the concentration of the respondent. With regard to the question wording, Cohen and Manion (1994 p94) recommend avoiding questions that are 'leading', too 'highbrow', 'complex', 'irritating' or 'use negatives'.

Spatial Coverage and Distribution of the Questionnaire Survey

As responses were required from both the primary and secondary sectors, it was necessary to delimit a sample area that would ensure an acceptable response rate from both primary and secondary schools. Given the need for later case study material, geographical accessibility was deemed important. In addition, a cross-section of both urban and rural schools was considered desirable. In order to form a contiguous

geographical unit it was, therefore, decided to send questionnaires to all primary and secondary schools (excluding independent schools) contained within the Charwell, Oakleigh, Bridgewood and Greendale LEA boundaries (names of LEAs have been changed to ensure anonymity). While the resultant data was analysed for each LEA, a regional interpretation could also be provided, similar to the analysis provided by Roberts (1991) in her study of South Yorkshire schools.

The survey (a copy of the primary and secondary survey are provided in Appendix 1) was distributed via the post addressed to geography coordinators in primary schools and heads of geography departments in secondary schools. Given the number of schools to be surveyed and the distance involved, even within the LEAs concerned, this was considered the most appropriate form of communication. In addition, as Cohen and Manion (1994) point out, response rates to postal questionnaires compare favourably with those of surveys conducted by interview. Each survey contained a covering letter (Appendix 1). The purpose of a covering letter is described by Cohen and Manion (1994) as:

> '...to indicate the aim of the survey, to convey to respondents its importance, to assure them of confidentiality, and to encourage their replies' (Cohen and Manion 1994, p97).

Although confidentiality was assured, each questionnaire was coded to assess response rates and to identify from which LEA the respondent had replied. In addition, respondents were given the opportunity to state their name and school if they would be prepared to take part in a follow up interview. A stamped addressed envelope was included to encourage returns.

Timing of the distribution of the questionnaire survey was also considered carefully in an attempt to maximise returns. Questionnaires were distributed at half term during the summer term of 1999. This was considered the optimal time for distribution, as primary school teachers would have finished conducting Standardised Assessment Tests (SATs) and secondary school teachers would have finished their preparation of examination classes and would possibly have more non-contact time then at any other time of the year.

Response Rates to the Questionnaire

The response rates to the questionnaire survey are shown in Tables 3.1 and 3.2.

Table 3.1. Primary Questionnaire Response Rate

LEA	Number of Questionnaires Returned	Maximum Number of Questionnaires that could be Returned	Response Rate (%)
Charwell	60	277	22
Oakleigh	19	88	22
Bridgewood	14	52	27
Greendale	37	162	23
Regional Total	130	579	22

Table 3.2. Secondary Questionnaire Response Rate

LEA	Number of Questionnaires Returned	Maximum Number of Questionnaires that could be Returned	Response Rate (%)
Charwell	30	77	39
Oakleigh	6	18	33
Bridgewood	7	12	58
Greendale	18	36	50
Regional Total	61	143	43

While the response rates for primary schools were low - Cohen and Manion (1994) describe a typical pattern of response as 40% - the number of responses allowed for a large amount of data to be analysed. The secondary response rate was, by comparison, much better and certainly compares favourably with similar surveys, such as Robinson's (1984) survey of secondary schools' teaching of development issues which secured only a 28% response rate.

The lower primary school response rate may be attributable to a number of factors, including a lack of non-contact time to complete the questionnaire, even in the summer term, and perhaps the perception of geography coordinators that they were not qualified or well equipped to answer such a survey. Many of the most detailed responses, for example, came from primary school teachers with a major interest and training in geography.

In analysing and interpreting the questionnaire data, it is, therefore important to acknowledge a potential source of bias and resultant skewing of the information provided. Geography coordinators who returned questionnaires may well have been motivated to do so as they perceived geography as an important part of the primary school curriculum. Such a perception may well be rooted in their own personal interest or training received in the subject. The low return rate combined with the perception of seeing geography as important, may well mean that the data compiled from the questionnaire survey is predominantly representative of primary schools where the Key Stage 2 geography curriculum is being delivered successfully. A higher return rate may

well have led to some moderation of the trends discerned during analysis of the questionnaire data, especially where subject coordinators did not perceive geography as having a high priority at Key Stage 2.

Although all questionnaires returned provided valid data, the Greendale sample contained two questionnaires where the information regarding Key Stage 2 coverage was not completed in full, as did one of the Charwell questionnaires where a page was missing.

Aims and Objectives of the Questionnaire

The questionnaire survey used in this research was designed with three aims in mind:

1) To assess the state of school geography in Key Stage 2 and Key Stage 3 at the time of survey (summer term 1999), especially in light of the relaxing of the statutory requirement to cover all aspects of the geography national curriculum at Key Stage 2.

2) To establish the current extent of cross-phase liaison in schools in the four LEAs chosen and to consider how cross-phase liaison may be improved

3) To determine the principles applied when planning the geography curriculum in primary and secondary schools, assessing the degree to which continuity and progression takes place within and between Key Stages 2 and 3.

Questionnaire Design

The removal of the statutory requirement to fulfil all aspects of the Geography National Curriculum at Key Stage 2 had brought with it significant debate as to what form and content of geography would be taught in primary schools. It was, therefore, an opportunity to attain a snapshot of the state of geography in both secondary and primary schools, while a revision on the National Curriculum took place. As such, this questionnaire survey performed a similar function to the survey conducted in South Yorkshire secondary schools in 1989/90 to establish the nature of geography education in one part of the country prior to the onset of the Geography National Curriculum (Roberts 1991).

To gain any appreciation of the nature of geography being delivered in primary and secondary schools, it was necessary to establish what was being taught and, for the purposes of continuity and progression, in which years it was being taught. Thus the initial part of the questionnaire, required respondents to tick aspects of the National Curriculum that were being taught and in which year(s) they were delivered (see Appendix 1). The geographical topics listed for consideration were taken from the programmes of study at Key Stage 2 and Key Stage 3 of the National Curriculum that was in use during the academic year of 1998. It was felt appropriate to use this as the basis for determining content covered by schools as, at that stage, it provided the latest document that schools would have been using to plan and deliver geography. It was also decided to include the programmes of study from both Key Stage 2 and Key Stage 3 for

both primary and secondary respondents. Such programmes of study were not, however, distinctly marked as belonging to a particular Key Stage year. This was a deliberate attempt to reduce bias while filling in the questionnaire and to assess the implications for continuity and progression between Key Stages 2 and 3. To avoid ambiguity, it was also necessary to provide the range of possible years in which a programme of study might be delivered, as a topic may be covered, for example, in Year 7 and Year 9, or Year 7 only. Such distinctions become important when analysing continuity and progression in the geography curriculum. Two questions regarding resources and use of Information Communication Technology (ICT) in each key stage were also asked.

In adopting a tick box system where Key Stages 2 and 3 were not identified separately, there is an inherent danger that respondents will not consider carefully enough the answers they give. Such a danger is compounded by the use of topics from the Geography National Curriculum programmes of study. In indicating whether a particular topic was studied or not, primary school respondents may well have made immediate judgements without recourse to their own schemes of work. The implication of such practice may well be that topics from both Key Stage 2 and Key Stage 3 that appeared to relate to what was studied were ticked when in fact this was not case. In addition, the years covered may also have been indicated from memory leading to inaccuracies in the data.

As a conclusion to the section on what was being taught within the Key Stage, respondents were invited to discuss any factors that influenced how the geography curriculum was structured. This question, along with other open questions in the latter

part of the questionnaire, did not always elicit a response. In a number of cases, the less structured questions requiring personal response were ignored or only completed in part, making statistical analysis difficult, but still providing valuable qualitative data. It is possible that respondents felt they had nothing to add to data already given, or that time prevented a detailed response.

The latter two sections of the questionnaire adopted a mixture of open and closed questions. With regard to cross-phase liaison it was necessary to establish to what extent cross-phase liaison was taking place and the format this took. In order to do this questions regarding meetings (frequency, nature, attendance) were asked and respondents were required to indicate from a list of cross-phase activities which, if any, their school participated in. The content of the list was derived from Morgan (1996) who identified various aspects of cross-phase liaison that could take place between primary and secondary schools in geography. These were:

- Regular meetings between teachers from feeder primary schools and their secondary colleagues
- Giving advice and sharing of resources
- Year 6 and Year 7 teachers undertaking lessons in each establishment
- Secondary teachers viewing topic work
- Primary pupils visiting secondary schools to view work
- Exchange of information with regard to the work undertaken at primary level.

With regard to the latter, Morgan (1996) identifies essential information that should be passed on to secondary schools:

- Information on localities studied in the UK and overseas in depth at Key Stages 1 and 2
- Descriptions of fieldwork undertaken beyond the school locality, including any residential fieldwork
- Details of any geographical work that has been of significance to the class in question, including the last major unit of geographical work undertaken before transfer of schools.

Respondents were then required to comment on the factors which they thought would encourage and discourage liaison between primary and secondary schools.

Finally, it was also intended to discover how geography was being delivered. Given the concerns regarding the teaching of geography through topic work documented in Chapter 1, it was hoped to gain an assessment of how far the subject stood in its own right at primary level, how the curriculum was being altered in light of the changes to the statutory requirements, and how, if at all, secondary schools were responding to changes at Key Stage 2.

While the majority of the questionnaire could remain the same for both secondary and primary schools, there was by necessity alteration in some parts to avoid unnecessary and

inappropriate text (Appendix 1). The full data obtained from the questionnaire survey is tabulated in Appendix 8 for primary school respondents and Appendix 9 for secondary school respondents.

Case Study Research

While the questionnaires provided a large amount of quantifiable and qualitative data, key areas emerged requiring further in depth analysis. This was carried out through case-study research.

Case study research formed a significant part of the research process. The case-study researcher has been defined by Cohen and Manion (1994 p 106) as typically observing 'the characteristics of an individual unit – a child, a clique, a class, a school or a community'. Slater (1996 p304) describes case-study researchers as aiming to observe 'the totality of a situation with the intention of painting a picture, portraying features for a reader which have become significant to the observer with his or her set interests'. As a researcher, undertaking a case study may involve participation or non-participation depending on the nature of activities being investigated. What is generally accepted is that 'no standard methodology characterises case study research' (Slater 1996 p305). Simons (1989) states that the purpose and nature of the case study will determine the methodology employed. 'A wide range of methods (both quantitative and qualitative) may be utilized if they facilitate an understanding of the case' (Simons 1989 p116).

Elliott (1980) cites Wilson (1979) in describing the characteristics of case studies. According to Wilson case studies should be:

- Particularistic – describing events as they exist within a particular situation or institution
- Holistic – taking account of the as many of the different factors that influence what is being described
- Longitudinal- the case study describes events over a period of time
- Qualitative-documentation and prose is preferred to quantitative data.

As a tool of research, case studies are considered to be advantageous for a number of reasons. Data collected can often provide a firm representation of reality. Generalisations can be formulated as well as recognising the complexities of an individual situation. Interpretations of case studies may be used for encouraging better practice or for re-evaluating current practice and policy in educational settings. They are considered more accessible to readers, despite often being greater in length, than other research methods of data collection and analysis (Adelman et al 1980). In summarising the literature on case-study methodology, Slater (1996 p305) draws attention to the 'significance of interpretation' by the researcher, participants and the potential audience and to the general acceptance of the subjective nature of case study material. This is seen as a strength rather than a weakness. Meanwhile, Elliott (1980 p2) acknowledges the potential diversity in case study material by asserting the only commonality between case studies

is their ‘focus on particular situations and events’. An assertion supported by Roberts (1996).

As with all qualitative methods, the adoption of the case study approach raises questions over validity of the data generated. Elliott (1980 p5) argues that different ‘modes of validation’ are acceptable, as a researcher using ‘objective description’ would expect validation to be provided by the independent research community whereas the researcher employing ‘experiential’ description would seek validity from the participants involved in the case study.

A problem that is encountered with the data generated is that of representation. A frequent criticism of case study material is that its findings are only relevant to the participants and that generalisations cannot be formulated with any meaningfulness. Elliott (1980 p26) refutes this suggesting that case study should not be applied literally to other situations but rather tested by the degree to which ‘the study can be fruitfully elaborated and corrected by participants in other situations’. In the context of this research this could be expressed as how the findings might help encourage improvements in continuity and progression as well as cross-phase liaison between Key Stages 2 and 3.

A significant problem remains with the representation of the case study data. Given that a large amount of the research is generated from questionnaires and interviews, there has to be discretion over the way this data is represented to avoid bias and over (or under) stating a particular viewpoint. Elliott (1980) argues that an element of bias will exist as

soon as areas of consensus are described in preference to conflicting views, which form a minority of participant responses. Such difficulties manifest themselves in deciding the length of excerpts to be quoted from interviews where a consensus description will inevitably encourage shorter, selective quotation. There is a preference for a range of views to be expressed, which to a large degree will necessitate unstructured interviews or open-ended questionnaires. The importance of seeking further viewpoints as a result of initial dialogue and revisiting the participants (if required) is also a pre-requisite of such research. During this research, a range of views was sought, with certain participants being interviewed more than once to obtain further information in the light of the case study material.

There are further ethical considerations in the conducting of case study research that need to be considered prior to undertaking the research. Those involved in, or affected by, the research need to be informed of the purposes of the study, its likely outcomes and how it will be transmitted. Simons (1989) states that anonymity is almost impossible in a case study, given that material disseminated will be attributable by members of the institution which formed the case study even without them being named. With certain case study material individuals and institutions could gain or lose a great deal with the dissemination of the material. It is, therefore, important that not only is consent given but that 'individuals have opportunities throughout the evaluation to comment upon how they are represented' (Simons 1989 p118). To this end, where use of case study material is made, participants had the opportunity to comment prior to its inclusion in this thesis.

In reviewing various guidelines to case study research Simons (1989) identifies three principal ethical considerations that need to be taken into account in case study research. These are:

1) The maintenance of a balance between the public right to know and the right of the individual to privacy
2) The conducting of the study within clearly defined common guidelines
3) Guidelines and procedures adopted must apply equally to all participants.

The context of the study will determine the degree of participant input and involvement in the final documentation. Certain basic procedures were adopted in this thesis to avoid unnecessary clearance problems with individual participants, in particular establishing clearly that all interviews were 'on the record' unless otherwise stated by the participant.

A particular difficulty within this study arose through the interviewing of pupils. Simons (1989) questions whether the 'teacher turned researcher' can be perceived as such in the eyes of the pupils taught. In addition, confidentiality proves difficult to ensure given the level of maturity of eleven and twelve year olds used in the study. In an attempt to allay such fears, interviews were held in groups and were open ended, with questions being asked to encourage discussion and remove the element of fear.

For the purpose of this study, a variety of primary and secondary schools were selected for specific case studies. Schools for study were selected on the basis of the returned

questionnaire surveys and therefore formed an opportunity sample. Criteria for selection of case study schools included the desire to achieve an approximate balance between primary and secondary schools, representation from each of the four LEAs surveyed and the need to consider a range of schools where continuity and progression as well as cross-phase liaison was practiced, as well as those where such issues received a lower priority. Potential participants also had to indicate their agreement to participate in a follow-up interview, and even then, some individuals retracted this willingness when approached in person.

Interviews were conducted with either the geography coordinator in primary schools and/or the head of geography in secondary schools. Responsibilities within a primary school are predominantly structured such that one member of staff takes charge of a number of subject areas, and as such is responsible for developments and curriculum planning within that subject. It was, therefore, appropriate that a geography coordinator provide the case study material for a primary school. Indeed in some cases, the geography coordinator also held management responsibility, which elucidated more general comment on the themes under discussion regarding the school being studied. At secondary level, the head of the geography department was considered probably to be the most informed person to provide the case study material, although the option was given for another member of the department to be nominated for this purpose if it was considered more appropriate. In all secondary schools, the heads of department considered themselves best placed to provide the appropriate information. Table 3.3 lists

the case study schools and participants for interview. To ensure anonymity, the names of schools and interviewees have been changed.

A further aspect to the selection of case studies for in depth analysis was the interviewing of LEA advisors to complement and contrast the material gathered from individual schools. All advisors with responsibility for geography in the four LEAs studied for this research were approached regarding an interview, with three agreeing to participate. To ensure anonymity, the names of advisors and their LEAs have been changed (Table 3.3).

Following the conducting of case study interviews, a summary of findings were sent to certain individuals connected with geographical education to elicit comment and hence further add to the body of research evidence. A copy of the letter sent and a list of the recipients can be found in Appendix 3. It is important to recognise, however, that the responses received from such individuals may well contain an element of bias. Such bias may result from being influenced by the findings of the research presented in the letter and thus a perceived need to agree with them. Additionally, the positions held by such individuals, and the institutions they represent, may well influence their opinions or what response to the research findings they make.

It was also considered appropriate to seek the views of individual pupils who had recently moved from primary to secondary school in an attempt to assess the degree to which continuity and progression was being achieved and the impact (if any) of cross-phase liaison. Such a technique was adopted by Derricott (1985) when researching curriculum

continuity between primary and secondary school. Pupils were interviewed in three of the case study secondary schools (Table 3.3). In each case, the teacher previously interviewed selected the pupils to be interviewed, although it was requested that each group of pupils (numbering six or seven in each case) be balanced in terms of ability and gender and drawn from a variety of primary feeder schools, including, where possible, primary schools used as case studies for this research. Where a school had indicated a cross-phase liaison activity in geography had taken place, it was requested that some pupils who had participated in such an activity be included for interview. The list of questions asked to pupils is in Appendix 2.

Table 3.3 List of Case Study Interviews

Case Study Primary Schools

Primary School	Teacher Interviewed	Profile
Bromswold Junior School	Nicola Brown	Geography Coordinator
Woodleys Junior School	Louise Matthews	Geography Coordinator having graduated with a degree in geography.
Galsey Primary School	John Richardson	Deputy Head and geography coordinator, but little specialist geography training.
Spanoak Primary School	Felicity Wall	Geography Coordinator for a number of years.
Keysoe Junior School	Sue Nicholls	Member of senior management. Although not Geography Coordinator, a geography specialist and previously held the role.
Catworth Primary School	Sophie Thompson	Geography Coordinator and a geography specialist having read for geography related degree.

Case Study Secondary Schools

Secondary School	Teacher Interviewed	Profile
Hawkswell Comprehensive School*	Debbie Dixon	Head of Department
Colgreen Comprehensive School	Richard Smith	Head of Department
Crowhill Comprehensive School	Tom Evans	Head of Department
Honeyhill Secondary School*	Chris Hall	Head of Department
Tillbrook Secondary School*	Jenny Moore	Head of Department

* Pupils interviewed from these schools

LEA Advisors Interviewed

Stephen Drew, Humanities Advisor, Oakleigh LEA Matthew Steele, Geography Advisor, Charwell LEA. Tim Jefferies, Geography Advisor, Bridgewood LEA.

Interviews

During the visits to the case-study schools, the principal methodology adopted was that of interviews.

Research interviews have been defined as:

> 'a two-person conversation initiated by the interviewer for the specific purpose of obtaining research-relevant information, and focused by him (sic) on content specified by research objectives of systematic description, prediction, or explanation' (Cannell and Kahn 1968, cited in Cohen and Manion 1994, p271).

Interviews have conventionally been categorized into three groups – 'structured', 'semi-structured' and 'unstructured' (Davies 1997 p133). The former is considered as no more than a respondent answering questions in a defined questionnaire format, while the latter allows and encourages uninhibited discourse led by the respondent. Powney and Watts (1987) simplify this classification into 'respondent' and 'informant' interviews. During respondent interviews there is a set of questions to be answered and the interviewer retains control of the discussion. The intention of such interviews is to obtain answers to pre-determined questions and as such the interviewer has to direct proceedings. With informant interviews, however, it is the interviewee who forms the agenda and is given a free role to elaborate and express views. Adopting a semi-structured, unstructured or informant interview approach has significant advantages in that it allows the interviewee to express freely their views and opinions.

Using interviews to gather information has the advantage that detailed and in depth questioning can take place. Often, this provides more complex and intricate data than a questionnaire survey. This does not preclude the use of questionnaires, however. As Davies (1997) comments:

> '…what should distinguish an interview from a written questionnaire is the presence of unscripted input, the steerage, and the personality, background and motivations of the interviewer' (Davies 1997 p135).

Indeed, Wiegand (1996) comments that in geographical education research, interviews often complement some other form of data collection. Cohen and Manion (1994) perceive both questionnaire surveys and interviews as having complementary advantages, hence the use of both to gather data in this research:

> 'The advantages of the questionnaire, for instance, are: it tends to be more reliable; because it is anonymous, it encourages greater honesty; it is more economical than the interview in terms of time and money; and there is the possibility that it may be mailed. It disadvantages, on the other hand, are: there is often too low a percentage of returns; the interviewer is able to answer questions concerning both the purpose of the interview and any misunderstandings experienced by the interviewee...and an interview can be conducted at an appropriate speed whereas questionnaires are often filled in hurriedly' (Cohen and Manion p283).

In conducting the interviews, 'fixed alternative items' (Wiegand 1996 p114), where respondents are asked to agree or disagree with a statement, were avoided as far as possible as this discouraged elaboration. In contrast, the favoured approach of using 'open-ended items' (Wiegand 1996 p114) provided the opportunity for misunderstandings to be rectified or further clarification sought as well as allowing the interviewee to respond with answers that may, hitherto, not have been expected.

During the interviews with geography coordinators and heads of departments, a semi-structured format was adopted. This reflected the need to obtain some factual data required for comparability between studies, but thereafter a more open approach was adopted. As there was no desire to restrict the scope of the discussion, respondents were allowed to develop ideas in response to questions asked. Indeed, in most cases, an initial question elicited a response that prompted further questions not necessarily pre-determined. In this way, the interview developed its own focus and highlighted the main areas of feelings. Davies (1997) has referred to such developments as an example of grounded theory. Dey (1993 p103) describes the aim of grounded theory as being able 'to generate theory which is fully grounded in the data'. Questions that are important to the research will become clear only gradually as the research progresses (Fien and Hillcoat 1996, Miles and Huberman 1994). By allowing for such flexibility within the interview, misunderstandings could be clarified, points raised developed further and a clear focus developed in the discussion.

Where direct quotation from interviews was to be used in this research, permission was sought from the interviewee concerned to include their quote, and as such, were given the opportunity to amend or censor the transcript of the quote to be utilised. Quotations were also used from the questionnaire survey, although as anonominity had been assured to the respondent these were not attributed to a particular person or school. Interpretations of quotations, however, are entirely those of the researcher.

In undertaking interviews with LEA advisors, interpretation of the data collected required caution, given their position and overall responsibility for geographical education across all ages. In this light, Butt (1997 p93) has eluded to the difficulties of interviewing ‘elites’, especially where there may be ‘considerable restrictions on what they are prepared to say ‘on the record’’.

Likewise, conducting interviews with children also presents a different set of challenges in both data collection and the later interpretation of the data. Children can often feel intimidated in a one-to-one setting and thus such interviews took place in groups of not less than six. Indeed, apart from the practicalities of seeing a group of children at the same time from the same school, responses given by one pupil often would provide a stimulus to others - an advantage recognised by Cohen and Manion (1994). Nevertheless, there is still a tendency for children to seek a ‘right’ answer and to feel inferior if the interviewer suggests that this may not be what is required. Spencer (2001) cautions against the use of closed questions with children as these ‘may lead to the interviewer misunderstanding what the interviewee has meant to communicate’ (Spencer 2001 p7). As such, a very careful style of open questioning was adopted aimed to stimulate ideas and not appear as if some form of assessment was taking place. Analysing transcripts of such interviews also has the difficulty of being able to distinguish between individual contributors.

The undertaking of interviews generates a vast amount of material, which cannot all be included but which will have influenced the overall interpretation of findings. While

some researchers have quoted transcripts at length from interviews (such as Robinson 1984), the nature of the research lends itself to more selective quotation, especially when combined with other data gathered. It is hoped that in doing so, the quotation included captures the nature of the whole transcript.

Despite its inherent advantages, interviews can be problematic as a research tool. Avoidance of bias in the interview process is difficult, especially where the interviewer holds his or her own views on the topic being mooted. A question, if phrased incorrectly, could influence a respondent by anticipating a certain reply. Indeed, Brenner (1981) suggests that the conducting of an interview without some form of interviewer influence is an improbability. Butt (1997 p96) lists the main sources of interviewer bias as 'background characteristics (age, education, socio-economic status, race, religion), psychological factors (perceptions, attitudes, expectations and motives) and behavioural factors (reading, recording and probing of the questions)'.

Interviews conducted for this research had a number of sources of potential bias. As a practicing secondary school teacher, the researcher, albeit unintentionally, began with a perception of continuity, progression and the status of geography at Key Stage 2. Likewise teachers interviewed held perceptions rooted in the experience of either primary or secondary schooling. As the primary and secondary school teacher interviewees were drawn from respondents to the questionnaire survey, which in itself has been identified as possibly presenting a biased picture of geography teaching, especially at Key Stage 2, and had indicated a willingness to participate in an interview, it is likely that those

teachers interviewed possessed a strong interest in geography. Gaining a truly representative sample and cross-section of viewpoints becomes difficult under these circumstances. (A similar concern could also be expressed regarding the letters sent to key geography educationalists who will each have their own viewpoint indicative of their personal perceptions, position and the institution for which they work.) To this end, the interviews of LEA advisors was intended to provide an overview and to some extent reduce bias that may present itself during teacher interviews.

In order for an interview to be successful, Wiegand (1996) citing the work of Cannell and Kahn (1968), suggests information to be obtained must be accessible to the interviewer. The interviewee, meanwhile, must understand what the interviewer is requesting and, perhaps most importantly, 'the respondent must want to cooperate with the interviewer and to answer accurately and truthfully' (Wiegand 1996 p112). Butt (1997) has also warned of the dangers of being coerced into agreement with an interviewee, often unintentionally, which will bias the interview process. Likewise, while appreciating the need to reword or rephrase questions if necessary, Butt (1997) warns of the temptation to answer one's own question in an attempt to be more explicit. Despite all efforts at ensuring confidentiality and gaining trust, there is still no guarantee that the interviewee perceives ulterior motives in the questioning and will not respond freely, or will become evasive if the questioning is too direct. Equally, in adopting an open-ended questioning style, there is a danger that the discussion could degenerate into a forum to express dissatisfaction with the current educational climate or interviewee's institution.

Various practical problems also surrounded the conducting of interviews. Arranging interviews to accommodate busy classroom schedules in some cases necessitated a defined time limit, as well as finding a suitable location to conduct the interview.

Preparation for Interviews

Following an in-depth analysis of the questionnaire surveys and selection and securing of agreement of individuals to be interviewed, a list of key questions were drawn up for interview (Appendix 2). While commonality existed, by necessity there was a need to tailor the questions asked according to whether the interview was being conducted in the primary or secondary setting. The responses given by teachers also facilitated further editing of the main questions when interviewing LEA advisors.

Prior to interview, each interviewee had been made aware of the aims of the research and its intended usage and had received a copy of the questions to be asked at interview together with a request for any additional relevant information. Respondents were also made aware of the desire to tape the interview, although this agreement was secured verbally before the interview began and the opportunity given to clarify any issues regarding the nature of the interview or the aims and objectives of the research. One interviewee, Stephen Drew, requested that the interview not be taped, although agreed to manual transcription of comments as spoken.

Interviews were conducted wherever possible at the school of the interviewee. Davies (1997 p140) has highlighted the importance of 'the setting' of an interview and here the researcher tried to use the school environment wherever possible. Not only did this allow easy reference to resources mentioned during the interview, but it also allowed the researcher to appreciate the environment within which geography was being delivered, providing an important backdrop to the issues under discussion.

Transcription of Interviews

In all but the one case identified above, interviews were recorded onto tape and later transcribed. This allowed the interview to proceed without interruption for the immediate transcription of notes and aided the development and exploration of ideas. While such a method cannot capture the all important 'body language' that goes with spoken replies, it does reduce the risk of mistranscription. Interview notes were also taken where significant points were made in order to gain a written (if somewhat abbreviated) account of each interview.

Despite the obvious advantage of fully transcribing interviews, Powney and Watts (1987 p147) suggest that such transcriptions need to be treated with caution as they are 'invariably selective' and are an 'interpretation...of what is being said'. Indeed, Powney and Watts (1987) conclude:

> 'Where transcripts form part of the database it is important to remember that they are not raw data, but represent a transcriber's eye view of the event' (Powney and Watts 1987 p148).

Following transcription the interviews were replayed several times to eliminate as many areas of uncertainty as possible, and to gain a fuller understanding of the themes of the interview. Analysing interview data can prove difficult (Wiegand 1996), thus following the transcription of interviews, each individual transcription was read through fully to gain an appreciation of the strands or themes arising. These were rationalised into a number of key headings. Each transcript was then deconstructed using colour coding to represent the key headings. The transcripts were also annotated where it was felt the interview provided significant information that transcended the categories formulated. Through the adoption of this approach, the coded strands or themes could be compared and contrasted for each of the transcribed interviews and other sources of data collection used in the research.

As such, this practice followed guidelines suggested by Cohen and Manion (1994 p293-295) where ‘transcription’, ‘listening to the interview for a sense of the whole’, ‘delineating units of meaning’ ‘clustering units of relevant meaning’ and ‘identifying general and unique themes for all the interviews’ are all recommended techniques in interview analysis. It should be acknowledged, however, that during the decoding and interpretation of interview transcripts, researcher bias may be evident. As a practising secondary school teacher, perceptions and experience of issues raised during interviews may influence the interpretation made of interview transcripts. As strands or themes emerged from the decoding of transcripts, many categories were complementary to both primary and secondary interviews. It was, therefore, considered unnecessary to check

interpretations of these transcripts with other individuals, especially as themes emerging form teacher interviews were discussed during interviews with LEA advisors that took place after the school case study interviews. As such, interviews with LEA advisors provided an opportunity to discuss the researcher's interpretation of teacher interviews with individuals that should, by nature of their position, have an unbiased overview of geography and continuity and progression in both primary and secondary schools.

Use of Literary sources

A review of literary sources formed a significant part of the early stages of this research. Reference to such sources was necessary not only to inform and provide background to the research aims and objectives, but also to aid with the construction of the questionnaire survey and the conducting of interviews. Literary sources were also utilised to support and contrast with the findings of this research.

In order to fully understand the issues underlying continuity and progression within and across Key Stages 2 and 3 in geography, it was necessary not only to review the current literature on this theme (undertaken in Chapter 2), but also to trace the development of geography as a subject in the primary and secondary curriculum both prior to, and after the introduction of the National Curriculum and through its subsequent revisions (Chapter 1). The particular issue of the extent and nature of cross-phase liaison was

considered integral to continuity and progression in researching relevant literature, but was reviewed in its own right in Chapter 3.

Use was also made of Ofsted reports, contemporary newspaper articles and articles published on the internet, for example QCA reports.

Conclusion

The research methodology adopted for this thesis could be considered to include both quantitative and qualitative techniques - in essence, what Slater (1996) terms a 'mixed-frame' methodology. While a mixed-approach is evident in this thesis, however, the main paradigm adopted for this research is an interpretive one. There was no preconceived research paradigm adopted by the researcher, given the desire to use the most appropriate methods to gather the relevant research data. As such, the research question 'To what extent is continuity and progression occurring within and between Key Stages 2 and 3 in geography?' lent itself to reviewing of literary sources, questionnaire survey and interviews - the principal methods of data collection adopted by the researcher.

While the adoption of these research techniques have been justified within this chapter, there remain inherent disadvantages with such an approach, notably in avoiding bias during interviews and interpretation of interview transcripts and in the drawing of conclusions from a possibly unrepresentative small sample of questionnaire returns. This is especially so given the vested interests of primary and secondary school teachers, key

geography educationalists and the experience as a secondary school teacher the researcher brought to the investigation of the research question. Despite these limitations, every effort was made to ensure the ethical issues associated with the research methodology adopted were identified and dealt with appropriately. In particular, conducting interviews in an unprejudiced manner and allow interviewees to comment and change transcripts of interviews were two major examples.

The research findings will provide an important addition to work already undertaken on continuity and progression within the geography curriculum, which in itself may aid future curriculum planning. At present, as Waters (1998) observes, only limited research has been undertaken in this area, especially with regard to primary schools:

> 'Pointed questions are now frequently being asked by primary teachers about the nature of progression in the subject. This renewed focus on how pupils' learning advances the study of people, places, processes and patterns, and consequently on how best to plan in such a way to support their progress, has exposed the paucity of research findings upon which we might draw to underpin and guide future planning' (Waters 1998 p 55).

In more general terms, Catling (1999) argues for the need for more research in primary geography:

> 'the fact that a number of research studies, often-small scale, have been undertaken into a particular area of learning does not mean that enough is known about it. Indeed, it is clear...that many areas need more research before we have a sound foundation for the effective development of primary geography' (Catling 1999 p15).

In listing the priorities for research in primary geography, Catling (1999) touches upon many of the themes investigated in this thesis. Among the topics relevant to this research and cited as 'in need of research' by Catling (1999) are:

> 'Curriculum planning in primary geography
> Teaching strategies in primary geography
> The assessment of children's geographical learning
> Teachers' attitudes and understanding of geography
> The impact of government priorities on the planning, teaching and learning of geography'
> (Catling 1999 p16).

These points were also reinforced by teachers at the Primary Geography Research Conference in March 1999 where, among a list of top priorities for research created by primary geography teachers, the impact of the numeracy and literacy strategies on geography and how important the geography curriculum was in primary schools was noted (Catling 1999).

In considering the current extent and delivery of the geography in the primary and secondary school curriculum, this research also intends to provide an insight into the status of geography at the present time. In so doing the questions posed by Rawling (2000a) and cited in Chapter 1, will be addressed.

Carter (1999a) referred to the need for far more work to be done on breaking down the barriers between the primary and secondary phase. In providing an analysis of the current extent of cross-phase liaison activities in the four LEAs under study, new case study material will be added to the somewhat limited body of research on this topic. To the

knowledge of the researcher, a study of cross-phase liaison or of curriculum continuity in general has not been undertaken before in these LEAs. Indeed, there is a dearth of research information as to how well continuity and progression occurs between Key Stages 2 and 3. As Doyle and Herrington (1998) observe:

> 'To the question: "Does learning progression for the individual child continue across the primary/secondary divide?", the answer has to be: "We don't know"' (Doyle and Herrington 1998 p10).

In attempting to answer this question, this thesis will provide information on how, and to what extent, continuity and progression is being achieved in geography, which will contribute to the more general debate regarding continuity and progression in the foundation subjects. Assessing the impact of changes in the statutory requirements to fulfil Key Stage 2 geography between January 1998 and September 2000, this thesis is, to the knowledge of the researcher, the first piece of research to try and provide an assessment of how this and other curriculum pressures have affected the delivery of geography at both Key Stages 2 and 3.

Cordingley (2000), in reporting a survey of teachers regarding research in education, found teachers desiring detailed case studies that might inform future practice. Teachers were also desirous of research that provided strategies that might improve future practice. The case study approach adopted in this thesis and the strategies outlined for enhancing continuity and progression between Key Stages 2 and 3 in Chapters 6 and 7, fulfil these criteria. The outcomes of this thesis are aimed to inform and encourage better practice amongst classroom practitioners at both Key Stage 2 and Key Stage 3 - Rudduck (2001

p3) has suggested that ‘teachers are most likely to be influenced by accounts of research undertaken by other teachers’ - and other relevant individuals and institutions including LEA advisors and government.

Chapter 4

THE ROLE AND FUNCTION OF GEOGRAPHY IN PRIMARY AND SECONDARY SCHOOLS

For an informed analysis of continuity and progression between Key Stage 2 and 3 to take place, it is necessary to determine the current status of geography in both primary and secondary schools. This includes a consideration of how the geography curriculum is being delivered at Key Stage 2 and Key Stage 3, the nature of geography teaching in both the primary and secondary sector and the influences of the design of the Key Stage 2 and Key Stage 3 curriculum.

Delivery of Geography in Primary Schools

Analysis of questionnaire returns suggest that geography is delivered mainly as a separate subject within the primary school curriculum. 65 schools surveyed (54%) deliver all their geography teaching during an allocated geography timetable slot. A further 50 schools (38%), combine an approach that integrates geography in topic work with other subjects when appropriate, while still delivering some aspects of the curriculum as a separate subject. Only in 6 schools was geography not distinguished as a separate subject. This compares favourably with the HMI findings of 1989 (Binns 1996), and the situation shortly after the introduction of the National Curriculum when Ofsted reported that the majority of work was undertaken in the form of topics (Ofsted 1993). Nevertheless there

appears to be a large amount of cross-curricular linking of topics. A typical pattern seems to be that adopted by Galsey Primary School:

> 'Sometimes a year group will have a geography focus topic, other times it is linked in. Quite often we tend to have a history topic and it is linked in. For example, if you are doing the Vikings and Anglo Saxons then you bring settlement into that – why they settled where they did, what were the reasons they settled in certain places –so it can be a mixture of things' (John Richardson, Galsey Primary School).

A similar example comes from a Charwell primary school where an imaginative link was made between a history topic on the Egyptians and the study of the River Nile for geography. In a similar fashion, linking topics covered in science, especially studies of the weather, are frequently adopted as a tool to cover aspects of the geography curriculum. Such cross-curricular linking is consistent with patterns nationally as reported by Ofsted (Smith 1997a) and from observations in primary classrooms of geography lessons (Alcock 2001).

The introduction of the literacy and numeracy strategies (see Chapter 1) have diffused geography's delivery over a number of subject areas and not just the other foundation subjects traditionally used for combined topic work. At Keysoe Junior School, for example, a policy has been introduced whereby one writing session per week must link with another area of the curriculum and as such geography is covered in part through work for the literacy hour. In some cases, this can be advantageous in raising geography's profile. Sophie Thompson (Geography Coordinator, Catworth Primary School) describes geography (and history) as 'driving the rest of the curriculum'. For example, in fulfilling literacy requirements, children at Catworth Primary School wrote poems based on a

rainforest theme. Both these examples reflect Carter's (1998) suggestions for the delivery of primary school geography in the light of the numeracy and literacy initiatives and the following national trend identified by Ofsted:

> 'In responding to the National Literacy Strategy, a growing number of teachers are successfully using geographical contexts, both places and themes, to promote their pupils' reading and writing skills' (Ofsted 2000a).

Despite efforts to deliver geography as a separate subject, or even a main focus within a topic, it remains somewhat ambiguous as to how much it can boast a separate identity as a Key Stage 2 subject. Schools such as Keysoe Junior School value retaining the identity of geography as a discrete subject:

> 'If they're going to a school that are doing discrete subjects, I would have thought it would have made sense if they knew at this age, and they would here because we do teach discrete subjects' (Sue Nicholls, Keysoe Junior School).

Yet the experience of many secondary school teachers is that Year 7 pupils are not able to compartmentalise their primary school geography studies into discrete subjects. As Debbie Dixon, Head of Geography at Hawkswell Comprehensive School comments:

> 'They often don't realise what they are doing is geography. When I say "Well, what have you done in geography?" some of them look very bemused, they're not sure, and then when somebody says something about rainforests they say "Oh, we did that", but they haven't realised it was a separate subject called geography. They'll have called it "project work" or something like that, its not actually been given a name' (Debbie Dixon, Hawkswell Comprehensive School).

Richard Smith, Head of Geography at Colgreen Comprehensive School, concurs with this viewpoint:

> 'If any geography happens [at Key Stage 2] it is often so embodied in what is supposed to be called key skills, the literacy numeracy thing, that the kids themselves often don't see it as geography. Increasingly youngsters coming up to Year 7 regard geography as a new subject because they have not seen it in terms of it being a separate subject. They might have done a topic on Pakistan but they haven't necessarily seen it as geography' (Richard Smith, Colgreen Comprehensive School).

Carter (1998) concurs with these views, contending that 'children do not see the world in self-contained chunks' and that primary school teachers 'for most of the time organise children's learning through topics or themes which straddle several curriculum areas' (p92). Although supported by Ofsted (2001c), these views receive a firm rebuttal from Matthew Steele, LEA advisor for geography in Charwell. In supporting the findings of Morgan (1995) that primary school geography was starting to emerge as a separate subject, Matthew Steele, sees such comments as excuses for not paying greater attention to the Key Stage 2 curriculum:

> 'Although primary geography is currently going through a bad patch in many schools, I think that the notion that primary schools work on vague, unfocused, topics is, if it was ever true, now in the dustbin of history. Sometimes we teachers say these sort of things just to justify the position, to load the blame onto somebody else' (Matthew Steele, LEA Geography Advisor for Charwell).

In responding to the question 'what is geography?', the pupils interviewed all specified different topics rather than a definition of the subject. The study of the weather, settlements, places where we live, where countries are and reading maps were popular answers to this question. In all but one school, Hawkswell Comprehensive School, pupils

all studied their geography as part of a topic. Topic themes were usually combined with history or other humanity areas. It is, therefore, not surprising that pupils were unable to provide a subject definition.

It would appear that while geography is being highlighted as a curriculum area in its own right at primary level, many pupils are unaware of its existence as a separate subject within the curriculum. This in itself may not be detrimental to pupils' geographical experience but it is important that they experience some geography at this level. With a large amount of work being undertaken in the form of cross-curricular topics (including literacy and numeracy initiatives) this lack of recognition is compounded. As such, the Geography National Curriculum is not, where this practice is common, being taught satisfactorily - concurring with the conclusions of Binns (1996), Wiegand (1993), Morgan (1995) and Smith (1997a) about the lack of geographical content in cross-curricular project work. Indeed, Ofsted have repeatedly drawn attention to the disadvantages of topic work (Ofsted 1993,1995a) and concluded in 2001 that:

> 'A minority of schools plan and teach integrated topics that incorporate work from several subjects, but often fail to ensure that the key elements of each subject are sufficiently taught' (Ofsted 2001a).

Evidence from the questionnaire survey confirms that the combined topic approach is practised in the minority (38%) rather than the majority of primary schools. To this extent, the views of Matthew Steele and the findings of Ofsted are not contradictory. Unfortunately, the rather complicated and numerous methods adopted to deliver the Key Stage 2 geography curriculum appears to be influencing the view many secondary

teachers hold about the nature of geography as a subject at Key Stage 2 (Iwaskow 2001), which in turn hinders attempts at achieving continuity and progression across the key stages.

In addition there are broader educational issues that influence the effective transition between primary and secondary school. In supporting the notion of planned discontinuity (Tickle 1985, Williams and Howley 1989), Felicity Wall, Geography Coordinator, Spanoak Primary School comments:

> 'I think it is a complete break. Children see what they have done in primary school as they did in a class with a class teacher that teaches all subjects, and then see it as a bit more specialist in secondary school' (Felicity Wall, Spanoak Primary School).

Time Allocation to Geography at Key Stage 2

In assessing the time devoted to geography it is difficult to be precise given the 'fluid' nature of primary school timetabling. The following explanation of time allocation for geography at Key Stage 2 at Woodleysschool illustrates this point:

> 'They will have a term of geography, a term of history and then a term of whichever fits in, however we've worked it, but during that they will also be looking at geographical skills while they're doing their history topic' (Louise Matthews, Woodleys Junior School).

It is, therefore, not surprising that many respondents to the questionnaire were unable to indicate accurately the time allocated to geography at Key Stage 2, as Holocha (2001)

had found in a similar survey. The carousel method of subject delivery also provides a partial explanation for the inability of pupils to perceive geography as a separate subject at Key Stage 2. Such a situation was also found in a survey conducted by Matthews (2000). The time allocated to geography at Key Stage 2 is illustrated in Figures 4.1,4.2,4.3 and 4.4.

Respondents to the questionnaire were asked to indicate the amount of time devoted to geography per week and per term. In order to compare answers with the suggested time allocation of the final Dearing Report (Dearing 1994), 45 hours a year at Key Stage 2, and the 30 hours a year recommended in the revised National Curriculum of September 2000 (Grimwade 2000). Where respondents answered indicating that geography was only delivered for part of the school year, the necessary adjustments were made to the figures to gain an accurate per week and per term assessment. While this method may lead to inaccuracies in some cases, it allows for comparisons and is consistent with Matthews (2000) treatment of time allocations.

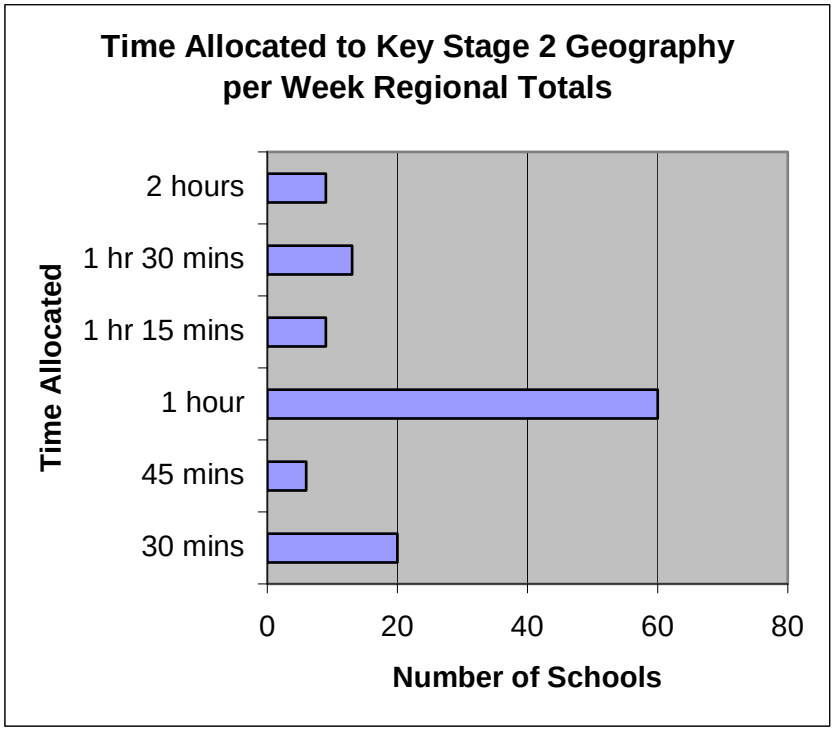
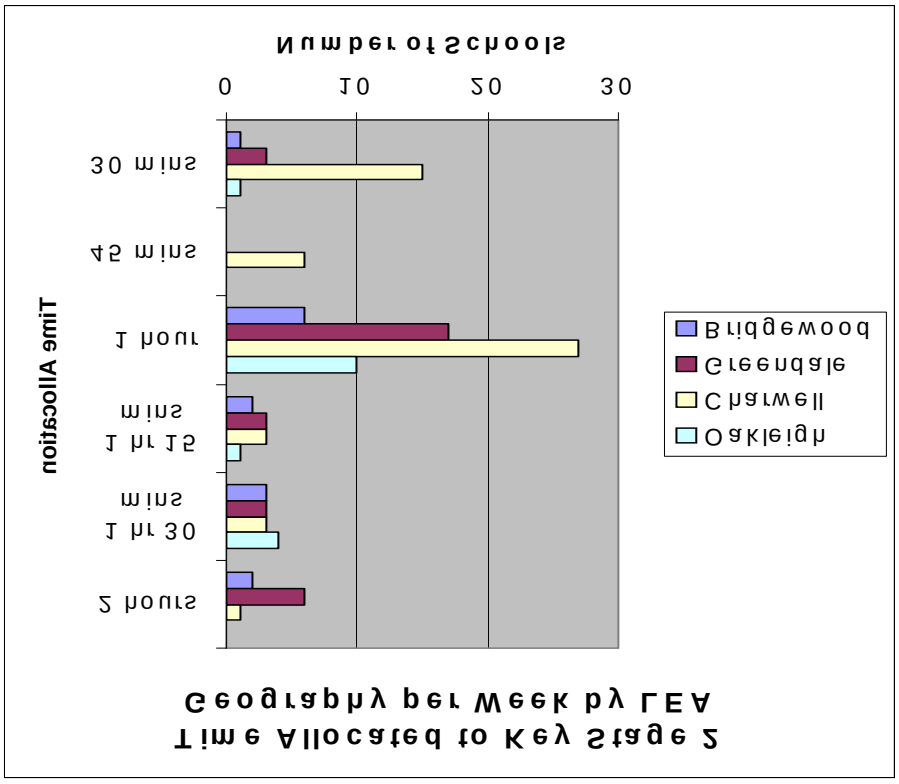


Figure 4.1

Figure 4.2



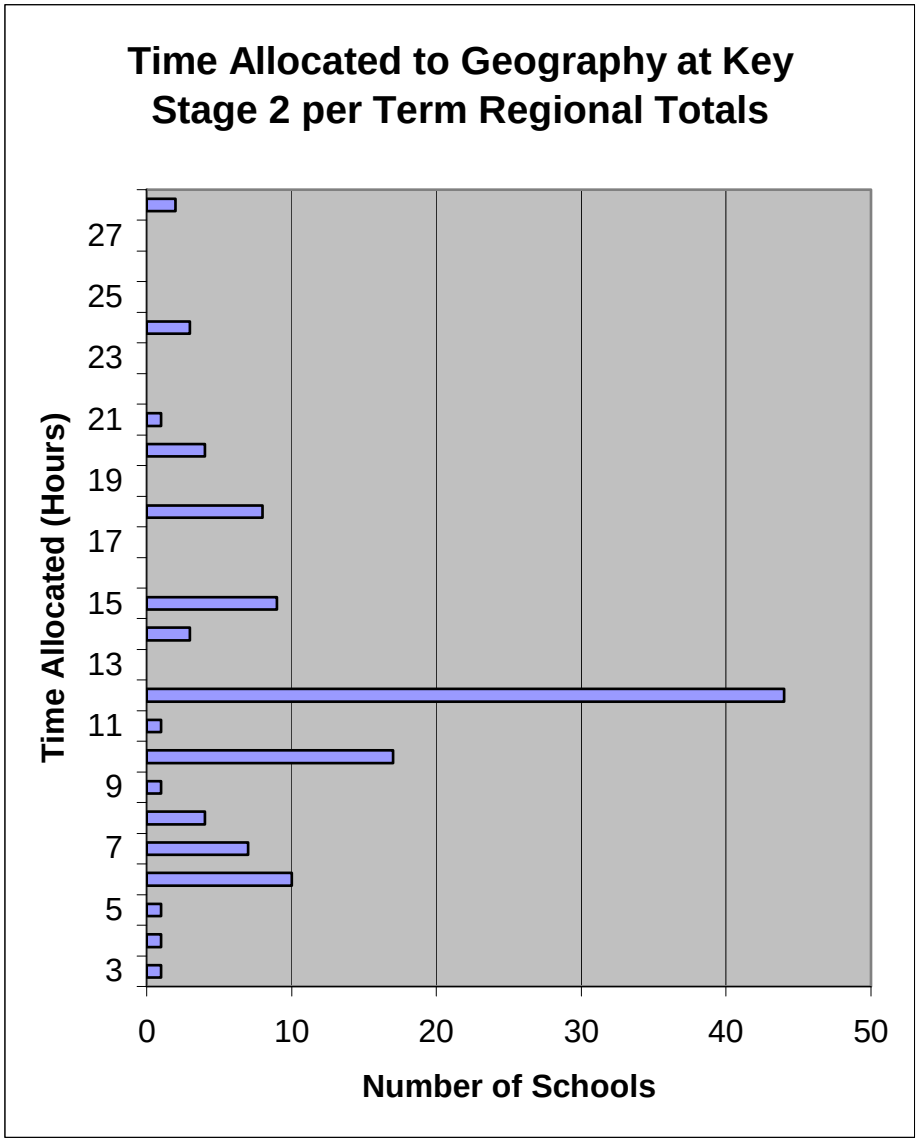

Time Allocated to Geography at Key Stage 2 per Term Regional Totals
Time Allocated (Hours)
27
25
23
21
19
17
15
13
11
9
7
5
3
0
10
20
30
40
50
Number of Schools

Figure 4.3

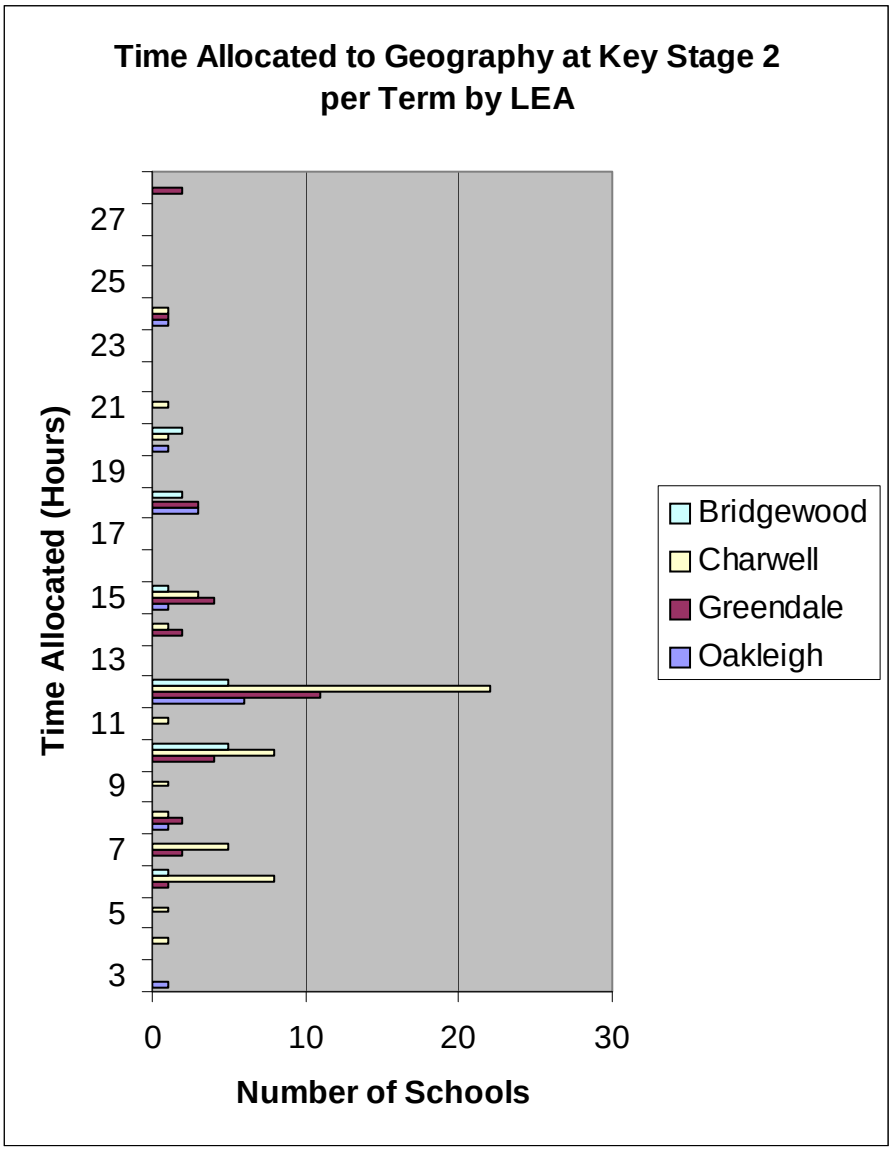

Time Allocated to Geography at Key Stage 2 per Term by LEA
Time Allocated (Hours)
27
25
23
21
19
17
15
13
11
9
7
5
3
0
10
20
30
Number of Schools
Bridgewood
Charwell
Greendale
Oakleigh

Figure 4.4

Only 26 schools fulfilled the recommended time allocation for Key Stage 2. The majority of schools, 62 (48%) teach between 10 and 12 hours of geography per term, translating to 30 –36 hours of geography per year. Such figures were also reflected in the data for the time allocated to geography per week – the majority of schools, 60 (46%) devoting one hour per week. These figures concur with the findings of Matthews (2000) where geography at Key Stage 2 was taught, on average, in 32 hours per year. Thus, in the lead up to the adoption of the new National Curriculum in September 2000, just over half the primary schools were working to the new time allocations suggested for geography, if not slightly exceeding them (60 minutes a week as opposed to the recommended 50 minutes). A further 26 schools went beyond this and in so doing represented the 20% of schools who, at the time of survey, were fulfilling the recommended time allocation for Key Stage 2 made by the final Dearing Report of 1994 (Dearing 1994). Within the four individual LEAs surveyed for this research, the largest number of secondary schools failing to meet even the recommended time allocation for geography in September 2000 are to be found in Charwell.

Teaching of geography in blocks of time is quite common practice in many primary schools, and has been one way in which geography has had its time allocation reduced. Instead of a set amount of time being devoted to the subject each week, geography is constrained to a part of a term or year where the number of hours devoted to the subject can be varied according to other curriculum pressures (Matthews 2000). While this can lead to a fragmented rather than ‘ongoing’ experience of geography, this is not necessarily perceived as detrimental to pupils’ overall geographical education. Tim

Jefferies (LEA Geography Advisor for Bridgewood), for example, believes a block of time allows for in depth learning as opposed to more superficial coverage spread throughout the year.

This view, however, is not shared by Ofsted. Indeed the current practice of blocking geography and history so that only one of these subjects is taught in a term, or half term, is considered to have a negative impact on pupils:

> 'When pupils have too long a gap between work in these subjects, their knowledge and skills can suffer, particularly in geography' (Ofsted 2001c).

While, therefore, it is possible to assert that the majority of schools surveyed are delivering geography as a separate subject and allocating the recommended time, it is clear that this is not universally so. Indeed, as Williams and Howley (1989) discovered, the fact that geography appears on a primary school timetable does not mean it will be delivered independently of other subjects. Geography is also frequently relegated to afternoon timetable slots (Walford 2001, Matthews 2000), a trend confirmed, with only one or two exceptions, from all the pupils interviewed. With literacy and numeracy initiatives the likelihood of combining with other curricula areas has only increased. Inevitably, this will lead to a reduction in curriculum time for geography, which in turn will affect pupils. Ofsted (1999a) cite a reduction in geography curriculum time as affecting pupils' geographical knowledge. It is, therefore, important to examine the current nature of geography at Key Stage 2.

The Nature of the Geographical Content Being Covered at Key Stage 2

The questionnaire survey provided an opportunity to assess the degree to which the statutory requirements for the Geography National Curriculum were being covered (even though the survey itself was circulated during the interim period between the suspension of the statutory requirements to fulfil all aspects of the national curriculum in geography and the introduction on the new National Curriculum in September 2000). In this sense, the survey provided a benchmark of primary geography in the summer of 1999. Despite the fears expressed regarding the state of geography at this point in time, the Key Stage 2 requirements are being fulfilled almost in their entirety, as Table 4.1 and the following sections illustrate.

Table 4.1 Coverage of Key Stage 2 Geography[1]

Skill/Place/Theme	Percentage of Primary Schools Teaching Topic[2]
Make plans and maps at a variety of scales, using symbols and keys	96
Understand how to use and give four figure grid references	95
Be able to measure direction and distance	85
Using a contents and index page of an atlas	97
Study local area of the school	100
Study of a locality elsewhere in UK	94
Study of locality in a developing country	95
How rivers erode, transport and deposit material	96
Landforms associated with river channels	83
How site conditions influence weather patterns	80
Seasonal weather patterns	97
Settlements vary in size	91
Settlements have different functions	88
Conflicts over use of land in settlements	83
How people affect the environment	95
How people manage the environment	88

[1]Themes derived from the Geography National Curriculum of 1999
[2]Percentages calculated on a sample of 130 primary schools

Geographical Skills

The opportunity to practice and experience geographical skills are entitlements that pupils should be taught. They appear in the Geography National Curriculum under the Key Stage 2 Programme of Study (DfEE 1995 p4), and as such are directly linked to the thematic studies of the Key Stage 2 Geography National Curriculum.

The skill requirements at Key Stage 2 are covered comprehensively by primary schools according to their responses to the questionnaire survey. Where other skills were introduced, these focused on the interpretation of photographs, and how to take measurements in the field. In particular, fieldwork skills relating to the study of rivers and weather were undertaken by a number of schools.

The nature of the questionnaire survey, however, did not allow for analysis of how well these skills are being taught. While Ofsted findings support the coverage of geographical skills, there is evidence that such skills are not being practised and consolidated, indicative of superficial coverage (Ofsted 1999b, 2000a).

Places Studies

Place studies, like geographical skills, are entitlements that pupils should be taught. They form part of the Key Stage 2 Programme of Study (DfEE 1995 p5) and as such directly link to the thematic studies of the Geography National Curriculum.

The place specifications in the geography order for Key Stage 2 were taught almost by all primary schools surveyed. Again, however, despite this seemingly comprehensive coverage, the quality of teaching of place studies is variable. While evidence suggests that pupils' knowledge of the local area is very good, and a wider range of foreign places are being studied, knowledge of more distance places and contrasting localities is less good (Ofsted 1998a, 1999b, 2000b), although most recently there have been some indications of improvement in this area (Ofsted 2001a).

Physical Geography Themes

A substantial majority of primary schools surveyed were teaching the physical geography themes and in some cases extending their teaching by, for example, studying climates in different parts of the world and extremes of weather. Standards of teaching such themes have also improved, with Oftsed reporting that knowledge and understanding of weather and rivers is improving (Ofsted 2000a). The conceptual difficulty and lack of subject expertise could well be cited for non-coverage of some Key Stage 2 topics (notably landforms associated with river channels and how site conditions influence weather). Ofsted (2000a) highlighted 'secure and confident use of subject knowledge' as essential for good quality teaching, and commentators have frequently drawn attention to the lack of specific geography knowledge and training as responsible for the variable delivery of the curriculum (Williams and Howley 1989, Morgan 1995, Ofsted 1993, 1995a, Smith 1997a). This factor, in particular, is relevant where teachers are unsure about physical geography concepts. Where choice is made available primary teachers, whether specialists or not, will continue to deliver themes they are comfortable and confident with. The variable coverage of some Key Stage 2 physical geography themes may also be attributable to the fact that the questionnaire was completed at the end of the first full academic year when the statutory requirement to fulfil the whole geography order had been removed. During case study interviews, non-specialist geographers in particular admitted to leaving out some of the geographical content and teaching the remainder at a more superficial level, a trend that had been in existence before the relaxation of the statutory requirements (Ofsted 1998a).

Human Geography Themes

The majority of primary schools continued, in 1999, to fulfil their statutory requirements regarding the delivery of Key Stage 2 human geography themes, complementing the situation with regard to physical geography themes. Like the physical geography themes, however, the quality of teaching would appear to vary. In citing similar problems to physical geography teaching, Ofsted (1998, 2000a) have highlighted the superficial knowledge and understanding of human geography by teachers and as a consequence pupils, especially in relation to human processes.

The questionnaire survey data, therefore, would suggest that at Key Stage 2 geographical content is being delivered, a trend supported more widely through Ofsted findings (Ofsted 2000a), but questions remain regarding the nature of the geography teaching at Key Stage 2.

Resources and ICT

The use of resources and ICT at Key Stage 2 is shown in Table 4.2.

Table 4.2 Use of Resources and ICT at Key Stage 2[1]

Resources	**Percentage of Schools Using Resource[2]**
Text Books	86
Videos	96
Pictures	98
Aerial Photographs	94
ICT	**Percentage of Schools Using Software[2]**
C D Roms	82
Word Processing for Geography	62
Spreadsheets	37
Mapping Packages	48

[1]Resources and ICT Software derived from the Geography National Curriculum of 1999
[2]Percentages calculated on a sample of 130 primary schools

The advent of the National Curriculum has provided a profusion of resources for teaching geography at all levels. Almost all primary schools surveyed not only utilise the suggested resources outlined in the Geography National Curriculum (DfEE 1995 p4), but also use these resources throughout the whole of Key Stage 2. A large number of schools also indicated their use of other resources, notable examples including fieldwork equipment, artefacts, maps, globes, audio-tapes and brochures.

The degree to which ICT has permeated the primary geography curriculum following the vigorous campaigning of the Geographical Association and other bodies such as BECTA, could be assessed by questioning the current usage of ICT in the classroom. Equipment and expertise considerations will obviously determine responses to a certain degree, which may account for large numbers of schools not covering word-processing for geography and use of spreadsheets. There was some evidence of using commercially produced software, especially on rainforests, while one school used the internet and

another a PowerPoint presentation. The LEAs surveyed reflected the regional trends, although Oakleigh and Bridgewood schools made less use of the suggested software packages than Greendale and Charwell.

The responses to the questionnaire survey indicate that resources suggested by the Geography National Curriculum are being integrated into the Key Stage 2 curriculum by primary schools, although there is clearly room for further integration of ICT into the geography curriculum - the survey evidence supporting Oftsed's findings that 'the use of ICT in geography is poorly developed' (Ofsted 2000a p1) with many schools making 'little use of ICT in geography, thus failing to take advantage of a powerful resource and a tool for developing geographical skills' (Ofsted 2001a p2). In trying to achieve greater integration, however, geography coordinators will be dependent upon decisions made at whole school level.

Standards of Geography at Key Stage 2

Despite the scepticism of some secondary teachers regarding the nature of geography undertaken at primary school, an analysis of the content and coverage of the Key Stage 2 curriculum in the four LEAs studied reveals that much of the statutory requirements were being delivered. While the relaxation of the statutory requirements to fulfil the geography order in January 1998 was widely expected to see a reduction in the geography being delivered at Key Stage 2, there was limited evidence to support this viewpoint in terms of the content covered. There is also evidence from the case study schools to confirm a good

standard of geography teaching. Not only is this evident in pupils' work (Appendix 1) but is also supported by individual inspection reports.

At Bromswold Junior School, for example, pupils are described as showing 'a keen interest in the subject matter...particularly in debating issues regarding the rainforest' (Ofsted 1999c p32). Meanwhile at Spanoak Primary School 'teachers generally use the environment effectively and pupils are being challenged with interesting and varied content such as examples of how people cause damage and improvement to the environment.' (Ofsted 1997 p33). At Woodleys Junior School, teaching at Key Stage 2 is described as 'good' (Ofsted 2000c p42), and even at Galsey Primary School where geography is coordinated by a non-specialist, inspectors reported that 'the teacher successfully encouraged pupils to interrogate information about intended man-made changes to a non-navigable river and to present a coherent argument for and against the proposals' (Oftsed 1999d p35). As an example of the high quality of geography that is being delivered in some schools at Key Stage 2, Catworth Primary School has received much praise:

> 'The quality of work produced by pupils in Years 5 and 6 is of a very high standard...Year 6 pupils talking about work done the previous spring term had a secure understanding of habitats, rivers and human influences on the environment. They used geographical terms accurately when describing rivers. They drew on first and second hand sources to support their understanding and illustrate their knowledge. Map skills are of a very high standard, with pupils confidently explaining the meaning of contour lines and how they indicate a steep or gentle slope' (Ofsted 1999e p46).

Such examples of good practice are indicative of a Key Stage 2 geography experience that should be built upon at Key Stage 3. Taken in isolation, these case studies illustrate

the high standards that some geography teachers are maintaining in delivering the subject at Key Stage 2. More generally, however, there remain significant questions regarding the quality of teaching (Ofsted 2001a), in particular the superficial coverage of certain topics in physical and human geography. Ofsted (2000a, 2001a) has drawn attention to the unchallenging tasks as well as weaknesses such as too much description with recall of simple facts and little explanation in tasks set and little emphasis on contrasting human and physical characteristics. In previous findings (Ofsted 1999b) the poor usage of geographical conventions was also commented upon, especially keys and scales on maps.

While such criticisms need addressing, it is apposite to consider in more detail the impact on geography teaching in primary schools that the relaxation in the statutory requirements to fulfil the geography order between January 1998 and September 2000 has had, and indeed whether some (if any) of these weaknesses in geography teaching can be related to this time of curriculum uncertainty.

The Effect of the Relaxation of Statutory Requirements to Fulfil the Geography National Curriculum at Key Stage 2

The timing of the distribution of the questionnaire survey allowed for analysis of how the Secretary of State's announcement in January 1998 (to remove the statutory requirement to fulfil the requirements of the Geography National Curriculum at Key Stages 1 and 2 until September 2000) had affected delivery of geography in primary schools.

Some 78 (60%) primary schools had either altered the curriculum and/or made changes to the way in which geography was taught in the classroom. It was also apparent, however, that changes made were not solely attributable to the relaxing of the statutory requirements. Indeed, a major cause of such change appears to be the demands placed on primary schools by the literacy and numeracy initiatives (introduced for literacy in 1997/1998 and numeracy a year later) thus presenting geography (along with the other foundation subjects where the statutory requirements were rescinded) as one curriculum area that it would be expedient to change to accommodate these new requirements. Many respondents reported a reduction in geography curriculum time in order to introduce and implement these strategies, and the blocking of geography with other subjects:

> ‘Geography has been cut to half an hour per week until literacy and numeracy standards improve’ (Geography coordinator, Charwell).

> ‘I actually feel quite depressed really about geography and history. I feel that there’s not enough being done. I mean with all this push on numeracy and literacy, the children know nothing about the world in which they live’(Sophie Thompson at Catworth Primary School).

As such, these comments and the survey evidence complement the findings of Iwaskow (2001), Ofsted (1999a, 2001a, 2001b) and Wood (2001) who feel that the geography experience of Key Stage 2 pupils has been diminished in recent years and Hackett (2000, 2001) who suggests that more than 80% of schools are spending less time on humanities subjects.

Another complicating factor that was applying pressure to the geography curriculum even before the 1998 announcement was the increasing importance being attached to test results in the Standard Attainment Tests (SATs) in mathematics, English and science. The introduction of the new National Curriculum in September 2000, with a return to a statutory requirement to fulfil the Key Stage 2 geography curriculum, is unlikely to change this emphasis. The principle effect of a SATs focus is to dilute and/or reduce the geography being taught in Year 6, which has implications for continuity and progression between the primary and secondary school. Keysoe Junior School reflects the situation found in most primary schools:

> 'One of the things we find is that at the beginning of Year 6 its not the big push for English , maths and science and then the curriculum tends to be, say, history or geography so if they do geography in the first term then at least they've had something, but then you're into English, maths and science. But if you didn't do geography that first term and then you get into the English, maths and science push and then you're coming to the end they might not have actually done geography' (Sue Nicholls, Keysoe Junior School).

At Bromswold Primary School and Spanoak primary School, time is given to SATs revision:

> 'You'll find in Year 6 come October history and geography is stopped and you go flat out for revision' (Felicity Wall, Whitely Abbey Primary School).

> The reason given for such a policy is 'that this is the only way you get them up to standard to take the tests' (Nicola Brown, Bromswold Junior School).

Such pressures of time evident in the Midlands accurately reflect the national situation. Ofsted inspections have identified literacy and numeracy provision and teaching for SATs as a major reason for reductions in Key Stage 2 geography time, especially where selection at 11 plus occurs (Iwaskov 2001). While many schools responded by adopting the QCA scheme of work (QCA 1998b) as their curriculum, by far the most favoured way to cope with these increasing pressures was to reduce the content in some topics. While some schools opted to omit whole themes, these tended to be either topics reserved for Key Stage 3, or those elements of the curriculum that were expected to be omitted from the new National Curriculum in September 2000, such as weather. The majority of Key Stage 2 tended to still be delivered. Some study of places, especially overseas localities, had been dropped and there was far more emphasis on cross-curricular links (especially history) to cover the National Curriculum in two or more subjects at the same time:

> 'Unfortunately due to literacy and numeracy hours, other curriculum areas do not have as much time as before. Geography is now combined with history' (Geography Coordinator, Charwell).

The responses of primary schools to the changes in the statutory requirements for geography reflect many of the reasons cited for the variable quality of teaching at Key Stage 2. Reducing content to a more superficial coverage, restricting the study of overseas localities and combining geography with history were all cited by Ofsted as areas where standards needed to improve (Ofsted 1998a, 2000b, 2001c). Thus, it is possible to conclude that Key Stage 2 geography was adversely affected during this

period – a conclusion also reached by Grimwade (2001a), Rawling (2000a) and Thrift and Walling (2000).

The changes had brought some initiatives that might be perceived as positive. A number of schools had returned to teaching geography as a separate subject, which would at least ensure a clearer focus on geographical teaching (Alcock 2001). Others had focused on fieldwork as a means of delivering some geography themes. One school had even introduced a geography week for the whole school.

Despite the relaxation of the statutory requirements at Key Stage 2, the majority of secondary schools did not respond to the changes by altering their Key Stage 3 curriculum. Indeed only 12 (20%) secondary schools altered the way in which geography was delivered at Key Stage 3 in response to the changes at Key Stage 2 and only 11 (18%) schools taught parts of the curriculum previously assumed to be covered at Key Stage 2.

Of this small minority most alterations took the form of concentrating more on basic map skills, place knowledge using an atlas and focusing on the local area. While such a small number of schools altering their curriculum could be interpreted as an expression of confidence that primary school teachers would still deliver Key Stage 2, it is more likely that secondary school teachers were already designing their Key Stage 3 curriculum to overlap extensively with Key Stage 2. The following examples illustrate this trend:

‘Previously I found that geography content was taught by some junior schools and not others. So I rewrote the geography course before they removed Key Stage 2 to start from the basics’ (Head of Geography, Charwell).

‘No, because we have always started Year 7 using a fairly low level of understanding’(Head of Geography, Charwell).

At the end of the academic year in July 1999, geography in primary schools was clearly in a state a flux, awaiting a return to the statutory requirement to fulfil the National Curriculum. It was obvious that much geography (even if in a diluted format) was still taking place in primary schools, and although government changes (notably the literacy and numeracy hours) had impacted significantly on primary schools (Rawling 2000b), Year 6 pupils were still being equipped to enter secondary school with the majority of Key Stage 2 geography being covered (Halocha 2001). In assessing the impact on primary school geography, Tim Jefferies, LEA Geography Advisor for Bridgewood, observed that the experiences of Key Stage 2 pupils may have diminished slightly, and geography had been relegated to afternoon sessions - but the geography was certainly being delivered.

It would be wrong to assume that secondary teachers ‘may well have to go back to the old position of assuming that the primary schools have taught nothing’, as a result of the suspension of the statutory requirements to fulfil the Geography National Curriculum as Walford (1998 p63) had suggested, although it would appear that this assumption was already deeply rooted prior to this period of time. Iwaskow (2001) asserts that disapplication of geography from primary schools has damaged continuity and deskilled some teachers. What the period between January 1998 and September 2000 did was to

focus attention on the many competing demands on primary school curriculum time - demands which have continued, if not worsened, since the reintroduction on statutory requirements to fulfil the Geography National Curriculum in September 2000.

Curriculum Planning and Design at Key Stage 2 – an Overview

In devising a scheme of work, especially one for an Order that is open to varied interpretation, many factors may influence the final composition of that scheme of work. Such diversity has been manifested in the primary schools' rationale for determining subject content at Key Stage 2.

The majority of schools surveyed use, as a basis for constructing their geography scheme of work, the National Curriculum. Given the statutory nature of the National Curriculum until 1998 this would have been expected. In addition, a large number of schools had also adopted, or were revising their curriculum to take account of, the published QCA schemes of work for Key Stage 1 and 2 geography (QCA 1998b). Other influences included Geographical Association publications, and in the early years of the National Curriculum, input from INSET courses and LEA advisors, although Halocha (2001) suggests that knowledge of support available is limited.

Apart from the use of published documentation, the desire to achieve continuity and progression in the design of the Geography National Curriculum at Key Stage 2 was frequently commented upon. Depending upon the school structure, this may be viewed as

a Key Stage 1 and 2 exercise or just restricted to Key Stage 2. In many instances, there has also been a real attempt to achieve continuity within Key Stage 2, while taking into consideration work undertaken at Key Stage 1. Such planning is exemplified by the following comments:

> 'The complete Key Stage 1 and Key Stage 2 programme devised to start in reception with home/school environment gradually broadening to local community, our country and the wider world' (Geography Coordinator, Charwell).
>
> 'Making sure there was progression in all areas...across Key Stage 2 and taking work done in Key Stage 1 previously' (Geography Coordinator, Charwell).
>
> 'We used the geography programme of study to make sure we covered the teaching of geographical skills, places and themes, attempting to get breadth, depth and progression across both Key Stages 1 and 2. Units of work decided upon by suitability of topic and availability of suitable materials for age groups. Each year group studies a locality either UK or overseas, with geographical skills linked to localities, not taught in isolation. Also environmental change covered in all age groups in Key Stage 2 in some aspect, often relating to locality' (Geography Coordinator, Oakleigh).

The desire to achieve a scheme of work that allows pupils to progress while fulfilling the National Curriculum dominated the rationale of the geography curriculum in primary schools. An important secondary factor, however, was the existence of resources and a desire to retain previously taught topics in the scheme of work. A strong motivating factor here was the time and effort put into production of materials for those topics originally. Where these materials could be integrated into the National Curriculum there was a strong desire to reuse them. 'Resources played a large part on the schemes – there are lots of good photopacks about' (Geography Coordinator, Charwell), 'availability of meaningful and current resources' (Geography Coordinator, Oakleigh), were typical comments illustrating this influence.

Fieldwork is valued as an integral part of the Key Stage 2 curriculum. As a consequence, many schools surveyed designed their schemes of work to complement fieldwork opportunities/educational excursions already in operation. As a Geographer Coordinator from Charwell commented:

> 'We aim to broaden their horizon, for example with visits to environments that are very different from the one in which they live (for example, we are twinned with a school in a small county town and we make two visits to farms to study farming in Key Stage 1 and Key Stage 2)'.

Examples of such practice include Bromswold Junior School covering land use and tourism through a project on the Isle of Wight which is visited by Year 6 and Catworth Primary School who cover a large amount of river, ecology and coastal work through their residential trip to Norfolk in Year 6. Indeed, as Figure 4.5 illustrates, Catworth Primary School not only experience geography at first hand but also integrate the whole fieldtrip experience into their teaching scheme of work.

Figure 4.5

Catworth Primary School – Residential Fieldtrip to Norfolk

Work undertaken prior to the fieldtrip:

'We get the Stratford OS Maps out...and they work in pairs or individually and they do work on direction, finding symbols, giving grid references...then before we go to Norfolk, we get the Norfolk OS map out and do a similar sort of thing but it is a little bit harder.'

Work undertaken on the fieldtrip:

'We do some work on Cromer and its growth which includes IT work. Obviously it is quite a declining area now so its a real contrast to Stratford because of course it was a tourist area in Victorian times...We do the data survey, so we do the dating of buildings. We look at photographs of buildings, set buildings, and the sort of things they have from particular eras and they go around in groups...and they are given a particular period of study. For example, we might say look for Victorian buildings or Georgian and once we were back we then collated all the information and then they have to provide photos of examples of buildings and how they've changed and then the post war houses. So we do dating buildings and land use in Cromer and Cromer as a contrasting locality.

Then we do the beach surveys. They work in groups of four and have a quadrat and actually do a rock pool survey of different zones of the beach. They are given palm tops for this and they can actually integrate a little of the IT as well...Then we come back and they have to graph what they can find in the rock pools. Obviously different zones of the beach have different wildlife and why, and the different temperatures of the water, and we make sketches of what we find.

Then we do some work on rivers...we measure depth, we measure width and then we measure flows and we usually have something like a grapefruit, different sorts of things to actually measure the speed that the river is flowing and then we do it on a meander to show how and where the deep position is.'

(Sophie Thompson, Catworth Primary School)

As such, this particular case study could be modelled as an example of good practice, but it also serves to highlight the quality and level of geography being undertaken by some primary schools where a subject specialist is driving the curriculum. Examples similar to this have been cited by Ofsted as representing high standards in Key Stage 2:

> 'High standards in key stage 2 were exemplified in a year 6 class which had made a one-day visit to a coastal resort, a settlement that contrasted with their own rural environment. They had devised a questionnaire that they used with local people during the visit. Their enthusiasm for the visit was developed in their follow-up work, which

> involved a group based activity comparing the weather in two settlements, and plotting data on maps and devising routes between the settlements. Each group displayed its findings and reported to the class' (Ofsted 2000a, p1).

In supporting the role that fieldwork has to play in primary geography, pupils interviewed talked with enthusiasm about their primary school experiences. Indeed, field courses involving a significant amount of geography were highlighted by many pupils as the most enjoyable part of their primary school geography. Many pupils also regarded further fieldwork as one of the areas they were most looking forward to continuing with as part of their Key Stage 3 geography course.

Ofsted has continually cited fieldwork as representing high standards of geography teaching (Ofsted 1998a, 1999b, 2001a). Evidence that many primary schools within the study area undertake such activities confirms that for certain pupils at the end of Key Stage 2, the geography teaching they will have received will have been of a high standard. Halocha (2001) confirms this trend as one aspect of the Geography National Curriculum that has suffered surprisingly little despite increasing curriculum pressures. The difficulty that such good practice creates is how secondary schools respond to the geographical experience of pupils from such schools as CatworthPrimary School when compared to the less rich experience of pupils from other primary schools.

During the planning process, discussion with other primary staff and utilisation of teacher expertise has determined to some extent the nature of the geography curriculum. In the case of one Oakleigh primary school, the personal interest of teachers, where 'they have lived/holidayed' influenced subject content.

Many schools surveyed have decided to formulate their scheme of work through general agreement of all Key Stage 2 teachers. An essential beginning for such discussion would appear to be not only staff specialism (in many cases geography is being delivered due to the interest and enthusiasm of coordinators who, for example, may have read for a geography degree), but how geographical components of the curriculum can be integrated into other subject areas.

The Role of Advisory Services (LEA)

The importance of INSET support, which has provided stimulus to curriculum developments in some schools, cannot be underestimated. Where curriculum support has been made available this has been utilised to formulate the Key Stage 2 curriculum. A number of Oakleigh primary schools, for example, used information provided by the Oakleigh LEA to assist in constructing a scheme of work. In Charwell the LEA advisory service and the existence of INSET courses, such as the 20 day Charwell Advisory and Support Service course, has had similar influences on determining geographical content, illustrating the benefits of training for the non-specialist teachers.

In Bridgewood, the LEA takes an even more pro-active role:

> 'The geography curriculum is decided by the LEA with advisory staff. This ensures that the National Curriculum objectives are being covered. The skills and themes to be taught are spread throughout the key stage to visit and then revisit certain skills. It is

the teacher's decision on how they will plan to teach the subject' (Geography Coordinator, Bridgewood).

Indeed the role of LEA advisors and advisory services would appear to have had some major inputting into primary school curriculum design in the past. This influence no longer exists, however, given that in today's educational climate, schools are required to purchase the services of LEA advisors. Where finance is limited, this will inevitably lead to the prioritising of services that need to be acquired. Geography, under these circumstances, is rarely considered a high priority (Halocha 2001). Schools now are forced to prioritise their financing. There is no automatic entitlement to provide some support for geography in primary schools. Funding for the Inspection Advisory Services has been removed from local authority control and been subsumed within a formula delegated to schools. With numeracy and literacy dominating priorities, the effect has been to substantially reduce the support provided by LEA advisers. This situation has affected advisory services across all subjects nationally (Dolye and Herrington 1998) and is manifest in geography both nationally (Iwaskow 2001) and locally, as Charwell and Bridgewood LEA illustrate:

'As schools are focused on literacy, numeracy strategies, they've not perceived that there has been a need to buy in curriculum support in geography and, therefore, our ability to influence change across all schemes in the LEA as we would have done five or six years ago is somewhat dissipated. So it's actually trying to keep geography on the agenda in primary schools, trying to keep good practice and planning sustained' (Tim Jefferies, LEA Geography Advisor for Bridgewood).

'Projects focused on literacy and numeracy are the major priorities. We might make a case for non-core subjects to collectively receive support but most of the big money goes towards general aspects such as improving teaching and learning rather than subject specific unless it's a core subject' (Matthew Steele, LEA Geography Advisor for Charwell).

Where the LEA advisory service is utilised, then the work undertaken at Key Stage 2 is mostly with curriculum planning:

> 'By far the most common support we give would be towards curriculum planning, helping schools to get their long term plan together and to install progression and continuity, particularly working on medium term plans and latterly that has been to help them adapt the QCA schemes' (Matthew Steele, LEA Geography Advisor for Charwell).

Medium and long term planning are common practice in all subjects in the primary curriculum. While historically, LEA advisors have had a significant input and influence upon the primary school curriculum, the change in funding arrangements have meant that this influence is likely to be (if not already) diminished in future curriculum support. Indeed, LEAs such as Greendale and Oakleigh now subsume the geography advisor role within the broad category of the humanities advisor, although in a departure from the overall trend observed in LEAs studied, Stephen Drew, LEA Advisor for Oakleigh reports good attendance on courses run in geography. Thus, primary schools have to explore other avenues to seek aid in delivering the Geography National Curriculum at Key Stage 2, for example advice from Ofsted, publications such as those from QCA, guidance from professional organisations such as the Geographical Association which are presently underutilised (Halocha 2001), or primary schools themselves organising their own support groups in geography and other subjects, as currently occurs in many areas (Halocha 2001).

The Role of the Geography Coordinator in Primary Schools

The diminishing role of the LEA advisory service means that an increasing emphasis is being placed upon geography coordinators. The importance of the role of geography coordinator in planning and delivering the curriculum has been noted by numerous commentators (Krause 1998, Morgan 1995, Ofsted 1993, 1995a, 2000a, Williams and Howley 1989). Evidence from school inspections affirms this importance. Indeed, Alexander et al (1992) have stressed the importance of teacher subject knowledge in being able to deliver effective teaching and securing progression while acknowledging that the generalist primary teacher will not be able to teach specialist subjects in the depth required for Key Stage 2. Areas of responsibility for the geography coordinator are typically considered to include clarifying and planning the geography programme of study, resource management, measuring progress and supporting other staff teaching the subject (Krause 1998). Yet most geography coordinators receive no extra payment for their role (Krause 1998, Matthews 2000). For example, the high standards of geography teaching at both Woodleys Junior School and Catworth Primary School were attributed to the management of the curriculum by the geography coordinator, which for each school is a geography specialist (Ofsted 1999e, 2000c). At Bromswold Junior School, the quality of teaching is attributed to the abilities and expertise of the geography teachers in general:

> 'Most teachers show a secure knowledge of the subject and considerable enthusiasm and creativity in bringing the subject alive' (Ofsted 1999c p32).

Indeed, in its recommendations to improve standards further in school, Ofsted stated that the role of the geography coordinator should be developed 'to ensure clear leadership and management of the subject so as to facilitate curriculum development and planning. Coordinators need time to do the job and professional development to support the role' (Ofsted 2000a p2). Such a conclusion had also been postulated by Smith (1997a) when suggesting a major investment in INSET programmes for primary school geography teachers and Iwaskow (2001) in calling for the reintroduction of 10 day coordinator Grants for Education Support and Training (GEST) courses - as these were identified as the most significant factor in improving primary geography prior to 1998. As Krause (1998) comments:

> 'The key elements of a geography coordinator's continuous professional development are externally provided INSET and the help of a curriculum adviser' (Krause 1998 p105).

These conclusions are indicative of a need for dedicated INSET time and resourcing to improve standards at Key Stage 2. Yet with a major provider of professional support, the LEA advisory service, now subservient to individual school requirements, there is no immediate prospect of these recommendations being implemented. Indeed, Matthews (2000) reported that INSET time had been reduced in 79% of primary schools. Without a restructuring of the financing arrangements, and the creation of dedicated time and funding for geography development in primary schools, the main focus of attention is likely to remain upon the core subjects. While there is an urgent and perceived need for INSET, schools are unwilling to release staff for such training due to costs of the training itself and of providing cover during their absence. Essex-Carter (2001) and Westaway

(2001) confirm this diminishing trend in providing INSET for geography coordinators This contrasts with the early years of the National Curriculum which did see greater INSET Halocha (2001). Only in one case study primary school in this research had a member of staff attended a geography related INSET course in the last three years, thus showing little improvement since Williams and Howley's study of 1989. In displaying remarkable similarity to reasons postulated for this in the 1989 study, primary school teachers interviewed in this research commented that when they were released for training courses, these were mainly in the core subjects.

It is not only in the area of INSET provision, that geography's role is being diminished. Essex-Carter (2001) has commented upon the minimal specialist training primary school teachers receive in their initial teacher training (ITT). Meanwhile, Krause (1998), Ofsted (2001b) and Westaway (2001) observe that the role of geography coordinator often passes to new entrants to the profession who, if perceived to perform well, are elevated to the posts of literacy or numeracy coordinators, for which financial remuneration is available. More fundamentally, fewer teachers during their initial teacher training are opting to specialise in geography or other foundation subjects, as literacy, numeracy and science are perceived as potentially more beneficial to their future careers (Alcock 2001, Bowles 2001). One exception to these dismal conclusions is provided by Alcock (2001) who runs a joint Key Stage 2/3 course in geography as part of initial teacher training at Canterbury Christ Church University College, Kent.

If the role of the geography coordinator is to be developed in future, new structures are going to be required beginning at initial teacher training and continuing through to professional development, to ensure appropriate geography training is achieved. Such structures will require input from organisations such as the Geographical Association, who may well need to increase the support currently given (Halocha 2001), and from government, who ultimately can allocate funding specifically for foundation subjects. Two recent initiatives are worthy of note in this respect. In 2001, The Geographical Association did appoint a continuing professional development organiser with specific responsibility for enhancing teachers' professional development. With regard to funding from the government, changes announced in March 2001 may provide geography with a new source of funding. As part of a strategy for continual professional development, the DfEE have stated that there will be:

> 'More money for teachers to undertake the professional development they see as important and more opportunity to share and learn from best practice in professional development in other schools' (DfEE 2001 p3).

Indeed there appears to be a recognition of the fact that more INSET time is needed as well as more diverse usage of monies allocated to INSET training:

> 'Schools will have much more flexibility in how they can use the Standards Fund, which will help them pursue their school development priorities and support the performance management process. Headteachers have been strongly encouraged to make professional development a priority using this flexibility. In addition teachers' contracts provide for five non-contact days, which schools primarily use for in-service training' (DfEE 2001p6).

There remains the danger, however, that school priorities will remain focused on the core subjects. Yet within the same document, it is implied that this new strategy has a broader aim and encompasses subjects outside the core as well as those within it:

> 'The National College for School Leadership, working with the DfEE, [will] develop a national programme of training for those with subject or specialist leadership responsibilities...This should include training in effective professional development' (DfEE 2001p16).

As part of implementing the new strategy, the DfEE have revised the framework for inspection for Ofsted to include 'a specific focus on a school's arrangements for the professional development of its staff' which 'should cover the school's arrangements for identifying development needs' (DfEE 2001p21).

There would appear, therefore, to be a real opportunity for geography coordinators, and the subject in general, to receive some of the professional development required and identified as necessary in improving the standard of Key Stage 2 geography. Key Stage 3 will, of course, also benefit from this new initiative. Indeed, in alluding to a perceived dip in teaching standards Rawling (2000a) suggests subject-based INSET as one strategy to avoid a drop in standards in Years 7-9.

It may also mean a renewed emphasis on the support that LEA advisors can give. While the DfEE's new strategy gives little indication as to the extent of support to the foundation subjects, opportunities are going to be created in this field. It is, therefore, important that schools and organisations such as the Geographical Association are aware

of these opportunities and that INSET organisations work to ensure good, well focused, training is on offer (Rawling 2000a). In the first instance, geography may well have to accept that provision for the professional development of coordinators may well be for foundation subjects in general. Adopting a broader subject stance might well increase the potential to attract more funding.

In the immediate future, geography coordinators will be reliant, in their curriculum planning, on support provided predominantly in written format. The advent of schemes of work published by QCA for all Key Stages, but especially Key Stage 1 and 2, has been one of the most detailed expositions of the Geography National Curriculum since its introduction. It is, therefore, important to assess the role of such schemes in curriculum planning at Key Stage 2.

Use of the QCA Scheme of Work for Key Stage 2 by Primary Schools

The publications of QCA schemes of work for geography at Key Stage 1 and 2 (QCA 1998b), is already providing a significant impact on the geographical content taught in the primary curriculum. The reintroduction of the complete statutory National Curriculum from September 2000, has been made easier in its interpretation by the publication of such schemes. While it is not intended that schools necessarily follow the schemes as prescribed, for example, only teaching specific examples contained within the schemes (Carter 1999b), they should ensure progression within the Key Stage. The

timing of research provided an apposite point to assess the adoption and usefulness of such schemes of work.

The schemes of work have generally been welcomed by all primary school geography teachers, although the usage of the schemes has varied from wholesale adoption to using the material to supplement existing practice and curriculum content. Quite often the expertise of the geography coordinator determines the extent to which QCA schemes are followed. Louise Matthews of Woodleys Junior School, for example, prefers to use her own interpretation of the National Curriculum drawing on her background of a geography degree and clear understanding of the themes laid down by the National Curriculum, yet does perceive their benefits as well, selecting from them where relevant:

> 'Parts of it are really useful and as a structure for non-specialist teachers, for non-geographers...but as a whole document just to work from and say "right let's work from this", I don't think it is appropriate' (Louise Matthews, Woodleys Junior School).

While adopting the QCA schemes has been agreed at Spanoak Primary School, the geography coordinator is wary of placing too much reliance on them. Drawing upon teaching experiences under different educational systems, including Scotland, Felicity Wall cites examples where the scheme of work came in a pack and was supplemented by daily lesson plans. As such, the day by day exposition of the schemes of work still needs to occur. In addition, there is a reluctance to change current practice where resources have been built up:

> ‘Having spent a lot of money on resources we want to keep the best of that and marry QCA to that’ (Felicity Wall, Spanoak Primary School).

A good example of the blanket transfer of the QCA schemes of work to the Key Stage 2 Geography National Curriculum is the materials the scheme contains on the study of Llandudno. Designed as an example locality study its appropriateness to an inner city primary school in Charwell, for example, is limited to a case study of a contrasting locality. Yet, in primary schools surveyed with non-specialist geography coordinators the tendency would appear to be to adopt the QCA schemes more closely. Typical of many such schools is Galsey Primary School:

> ‘I think what they’ve done is very good. Certainly for non-specialists it’s a great starting point for, say, the geographical vocabulary that should be covered and the use of questions for children so I think they are worthwhile – they will certainly be used, but where it says Year 3, whether we will specifically use it for Year 3, it might be used for Year 4 or Year 5, however it fits in with our topics and plans’ (John Richardson, Galsey Primary School).

Adoption of the QCA schemes in geography is often also related to wider school policy. At Keysoe Primary School, for example, the topics covered for geography are ‘whatever QCA lay down’(Sue Nicholls, Keysoe Primary School) as school policy is to follow QCA schemes of work in all subjects.

Appendix 5 contains an example of how one school’s (Bournevale Church of England Primary School) curriculum planning has been dominated by the QCA scheme of work. Although this particular primary school is in Greendale, the geography curriculum has been devised to encompass all aspects of the QCA Key Stage 2 scheme of work,

including teaching about Llandudno. Many primary schools nationally have adopted a similar plan (Ofsted 2001a). This approach is greeted with dismay by some commentators and LEA advisors interviewed. Matthew Steele, for example, feels that schools are under the misapprehension that the QCA scheme of work is a compulsory document. Iwaskow (2001) and Rawling (2000a) assert that some schools perceive the QCA schemes of work as the 'government-approved approach' (p216), while Alcock (2001) contends the schemes lack progression and continuity. Such views are supported by QCA's own research where teachers appear to be regarding the QCA units as the National Curriculum and were seemingly unaware of the revised National Curriculum introduced in September 2000 (Westaway 2001), and the findings of Matthews (2000) who suggests that in more than 75% of schools the QCA schemes have influenced geography teaching. Wholesale adoption of the schemes does not stop at schools either:

> 'I hear occasionally inspection teams asking why they're not using the QCA schemes of work so this is the fear I expect which is quite wrong, they are designed to supplement' (Matthew Steele, LEA Geography Advisor for Charwell).

As a consequence of this approach towards the QCA schemes adopted by many primary schools, Matthew Steele is encouraging schools to look at alternatives to the QCA schemes as well as reminding schools of the medium term plans that LEAs such as Charwell, Bridgewood and Greendale, already have in place. Such plans are, like the QCA schemes of work, designed as an additional resource, and primary schools need to utilise all the resources available in designing their Key Stage 2 geography curriculum. Bridgewood LEA is a particular case in point:

> ‘At Key Stage 2 we very much emphasize to the school that over the last four or five years they’ve been putting into place sophisticated schemes of work that they should not be throwing out because QCA have come along with some schemes of work. We’ve asked them to be selective. We still have concerns about the quality of the Key Stage 2 schemes of work and indeed any school who adopted those units would have to put a lot of planning into place beyond what’s already there. You’ve got to bring into play the knowledge of the teachers, the local circumstances, the locality of the school, the resources the school has, which year group you’re actually going to teach that unit of work in’ (Tim Jefferies, LEA Geography Advisor for Bridgewood).

Oakleigh is one LEA where teachers appear to be have been more selective in their use of the QCA schemes of work at Key Stage 2. In part, this can be attributed to the existence of comprehensive planning documents (Oakleigh LEA 1995) and exemplar schemes of work (Oakleigh LEA 1999). Combined with a programme of extensive INSET training, these schemes have received wide adoption by primary schools and although Stephen Drew, Humanities Advisor for Oakleigh, concedes the learning objectives section of the schemes does not compare with the greater detail of the QCA schemes, they nevertheless represent a full, comprehensive, interpretation of the National Curriculum, for which many schools have built up resources. In Oakleigh, therefore, Stephen Drew believes the QCA schemes at Key Stages 1 and 2 will have a much reduced impact.

The QCA schemes of work for geography at Key Stages 1 and 2 have received general approval from primary school staff, with many schools making use of them (Ofsted 2000a, 2001a). Indeed, during a recent inspection at Keysoe Primary School, a school that follows QCA guidance rigidly, Ofsted commented on how the ‘schemes of work in geography are of a high quality’ (Ofsted 1999f p35). Matthews (2000) also supports this view from findings in primary schools where use of the QCA schemes had improved in 71%, teaching and learning objectives in geography lessons. Thus, the QCA schemes can

be attributed to raising standards at Key Stage 2. Nevertheless, their usage and adoption will vary from school to school. There is also uncertainty regarding the intended usage of the schemes. There is likely to remain a number of factors influencing the final choice of content, with enthusiasm and expertise of the geography coordinator being significant amongst these. How willing, or easy, a primary school will find it to change their content in geography, given the reliance on current resources and expertise, also raises questions regarding the extent to which they will the schemes will be used. The exemplification of the Geography National Curriculum, however, that the schemes provide through their exemplar term and year plans and classroom material have provided non-specialist primary teachers with a clear framework through which to interpret and delivery the National Curriculum. To this end, secondary school geography teachers should be able to assess and understand the nature and content of the Key Stage 2 geography curriculum - more so now than at any time during the National Curriculum's existence. Potentially, the schemes could create a far more positive environment for continuity and progression between Key Stages 2 and 3, and certainly discourage transgression into Key Stage 3 themes. (It is likely, however, that only specialist geography teachers at primary level would feel confident enough and desirous of covering more advanced material at Key Stage 2. Nevertheless, some primary school teachers might inadvertently stray into these areas and teach them poorly through lack of understanding.) Even where secondary schools receive pupils from a myriad of primary schools (a major reason cited for a lack of primary-secondary liaison), knowledge that a published scheme of work is being followed may encourage continuity and progression between Key Stage 2 and 3 and overcome a lack of cross-phase liaison.

There are, however, significant questions regarding the content of the schemes of work and their appropriateness if adopted alone as the Key Stage 2 curriculum. Where this is happening, curriculum development is being stifled (Alcock 2001, Rawling 2000a). There is grave danger that perfectly good schemes of work based around existing resources, might be abandoned in favour of QCA's alternative. Some primary schools are clearly doing this, while others are more reticent. Once again a lack of consistency discourages continuity and progression but perhaps more fundamentally, given expression of concerns by the three LEA advisors interviewed over the content of the QCA schemes of work, the nature of the geographical experience of primary school pupils may be diminished.

Ofsted asserts that 'a clearly constructed and detailed scheme of work underpin good quality teaching'. Whereas, 'weaknesses in teaching can often be directly related to poor initial planning, schemes of work [that] are too vague [and] medium and short term plans lack[ing] clear objectives linked to expected outcomes' (Ofsted 2000a p2). It is, therefore, essential that such schemes of work for geography are well written and include 'learning objectives that are well defined, teaching activities [which] are suitably differentiated and resources [which] are relevant, leading to identified learning outcomes' (Ofsted 2000a p2). As the geography coordinator is usually the person with responsibility for construction of the Key Stage 2 scheme of work, it is important that appropriate training and guidance is given (Ofsted 2000a), especially if adoption of the QCA schemes of work are taking place. There is evidence of detailed and clearly constructed schemes

of work (Appendix 5), leading to good geography teaching, whereas ineffective schemes are directly related to poor subject leadership (Ofsted 2001a). The Year 6 scheme of work for Woodleys Junior School, for example, (Appendix 3) elicited this comment regarding the quality of geography being delivered deriving from the scheme:

> 'Pupils in Year 6 competently describe the similarities and differences between life in Pakistan and where they live. Higher attaining pupils write detailed accounts of everyday life in Pakistan' (Ofsted 2000cp42).

For non-geography specialists guidance will be required, even with the QCA schemes of work, (Grimwade 1998) in a way that Tim Jefferies alluded to, to ensure that all Key Stage 2 schemes reach a similar standard. The question remains, however, of where the funding and time will be provided to execute this much needed professional development.

Overall Standards at Key Stage 2 in Geography

The myriad of complicating and sometimes conflicting factors that influence the delivery of geography in primary schools has led Ofsted (1999b) to describe the state of Key Stage 2 geography as providing a 'variable base' for Key Stage 3. Evidence of good geography planning and delivery at Key Stage 2, gleaned from case study schools and Ofsted reports, is not necessarily being replicated across all schools in the region or nationally. Geography at Key Stage 3 has to respond to this variable foundation. How, therefore, is geography delivered at Key Stage 3?

The Delivery of Geography in Secondary Schools

The time allocated to geography by secondary schools at Key Stage 3 is shown in Figures 4.6 and 4.7. While there is some variation, the amount of time spent on geography per week generally lies between 90 and 120 minutes, reinforcing the findings of Donert and Grimwade's (1998) survey that the average time nationally was 95 minutes. Such a time allocation also confirms that schools are following, or even extending, the recommended time for geography at Key Stage 3 of 45 hours as recommended by the Dearing Report of 1994 (Dearing 1994). Nonetheless, although Ofsted (1999a) have highlighted the differences in practice across schools where geography may be delivered on a single lesson of one hour a week or allocated up to two hours in some cases.

In comparison to primary schools, where geography has been subject to a number of competing pressures from other curriculum areas, it is apparent that in the secondary school curriculum at least, geography is maintaining its position as a Key Stage 3 foundation subject. It should be remembered, however, that the questionnaire survey which established these timings was conducted before the introduction of literacy and numeracy strategies into secondary schools and it would be apposite to caution against complacency as these, and other new curriculum areas such as citizenship, will inevitably demand curriculum time from somewhere in Key Stage 3 (Grimwade 2001a,Rawling 2000a, 2000c). Indeed Grimwade (2001b), commenting on a government Green Paper 'Schools – Building on Success' (DfES 2001a), expresses concern that proposals for

changes to Key Stage 3 did not merit mentioning geography's place in the National Curriculum.

In considering the geography being taught at Key Stage 3, it is appropriate to consider the coverage of the programmes of study under distinct headings, with skills and places entitlements once again linking directly the thematic studies of the Geography National Curriculum. Table 4.3 shows the coverage of the skills, places and thematic studies of the Geography National Curriculum at Key Stage 3 by secondary schools.

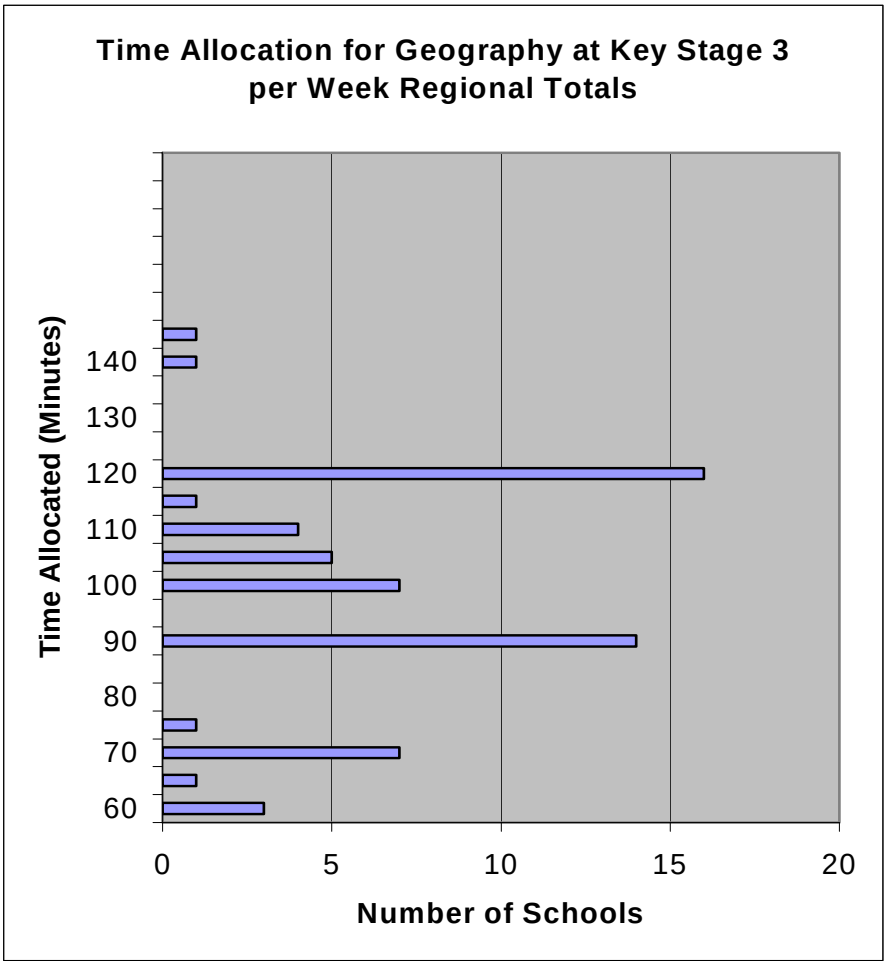

Time Allocation for Geography at Key Stage 3
per Week Regional Totals
Time Allocated (Minutes)
140
130
120
110
100
90
80
70
60
0
5
10
15
20
Number of Schools

Figure 4.6

Figure 4.7

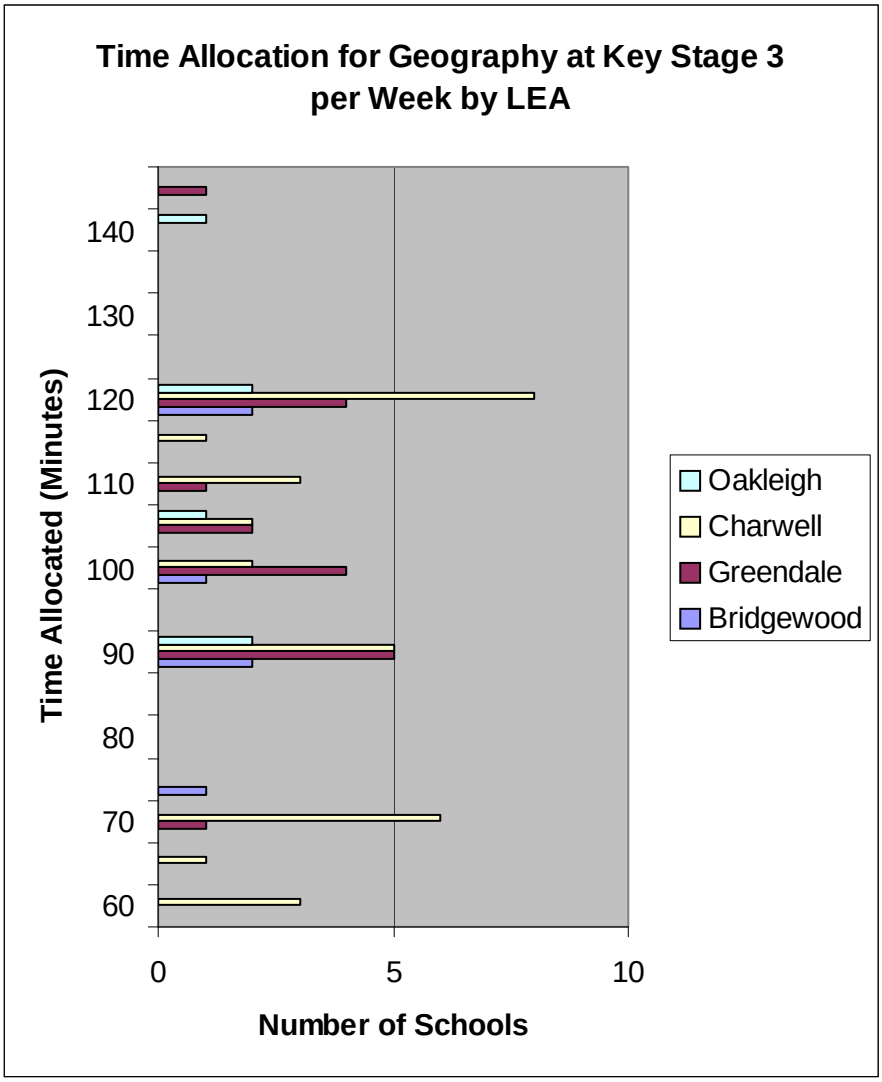

Time Allocation for Geography at Key Stage 3 per Week by LEA
Time Allocated (Minutes)
140
130
120
110
100
90
80
70
60
0
5
10
Number of Schools
Oakleigh
Charwell
Greendale
Bridgewood

Table 4.3 Key Stage 3 Skills/Places/Themes Taught by Secondary Schools[1]

Skill/Place/Theme	Percentage of Secondary Schools Teaching Theme[2]
Be able to use 1:50,000 OS map	97
Be able to use 1:25,000 OS map	77
Understand how to use and give six grid references	98
How to draw an annotated sketch map from an OS map	72
How to draw cross-sections from OS Maps	56
Use graphs to present geographical information	97
Locate places in an atlas	98
Study of a developed country outside the UK	98
Study of a developing country	100
The water cycle	97
The drainage basin system	90
Causes and effects of river floods	92
How weather and climate differ	98
Reason for location and growth of settlements	97
How types and variety of different types of goods vary In settlements of different sizes	87
Different types and patterns of urban land use	93
Unintended effects of managing the environment	82
Why areas are of great scenic attraction	92
Conflicts arising from managing the environment	97
Provision of fresh water supply	85
Causes effects and prevention of water pollution	84
Provision of energy supply	79
Environmental effects of different energy sources	80
Identify differences in development between countries	100
How differences in development affect quality of life	100
Global distribution of population	98
Causes and effects of changes in population size	97
Causes and effects of migration	97
Difference between primary, secondary, tertiary activity	100
Study one form of economic activity	100
The effects of changing distribution of chosen activity	86
The formation of coastal landforms	51
Causes and effects of cliff collapse or coastal flooding	41
The characteristics and distribution of one vegetation type	93
Processes associated with movement of tectonic plates	97
The causes and effects of earthquakes	96
The causes and effects of volcanic eruptions	97

[1]Themes derived from the Geography National Curriculum of 1999 [2]Percentages calculated on a sample of 61 secondary schools

Skills

Respondents to the questionnaire survey indicated that the skill elements of Key Stage 3 are taught by almost all secondary schools. Evidence can also be cited from the case study schools to indicate that the teaching of these skills is at least satisfactory and in many cases good. At Colgreen Comprehensive School pupils 'show a steady improvement in such skills as the compilation of annotated maps and diagrams' (Ofsted 1999g p35) meanwhile at Hawkswell Comprehensive School pupils' graphic and geographical skills are 'very well developed' (Ofsted 1998b).

While these individual examples illustrate good practice, it cannot necessarily be assumed that indication of coverage represents good teaching. As Ofsted (1999a) highlighted the need to focus on ensuring pupils at Key Stage 3 have the skills necessary to progress within the key stage, there remain questions regarding the quality of teaching of these skills.

Thus, while skill coverage at Key Stage 3 remains good within schools surveyed, there is a worrying lack of extension material in a number of schools which allied to data regarding the nature of a Year 7 geography course would appear to suggest that a minority of secondary schools are focusing too much on basic skills that should have been covered at Key Stage 2 and not building quickly enough upon the primary experience. Iwaskow (2001), in supporting this view, contends that secondary schools

spend a large part of Year 7 extending basic skills, often to the lowest ability pupils, with little evidence of differentiation taking place within Key Stage 3.

Places

The place requirements were fulfilled in their entirety for Key Stage 3 by all but one school. Indeed, most schools used aspects of the Key Stage 2 programme of study on localities to reinforce their consideration of developed and developing countries.

Physical Geography Themes

A maximum of 6 (10%) schools had opted not to teach aspects of hydrology, which would appear to be the preferred option, in comparison to coastal geomorphology. This trend was most apparent in Bridgewood and Charwell LEAs where well over half the schools in each LEA declined to explore coastal geomorphology, one reason cited by respondents being that hydrology studies were more akin to pupils' experience than those of coastal geomorphology. Given that coastal geomorphology is not part of the Key Stage 2 programme of study, this reluctance to introduce new material adheres to the principle of a spiral curriculum where the same topic is being revisited, although it goes against those commentators who believe that change is good (Newby 1995). The weather themes received much greater coverage, while the majority of schools taught the characteristics and distribution of one type of vegetation. Nearly all schools delivered the required Key Stage 3 themes for tectonic processes. Implicit in the figures is a criticism of the design

of the statutory requirements of Key Stage 3 geography with nearly all schools wishing, given the close linkage between the two topics, to cover both. The nature of the material and the lessons that such material engenders will probably also contribute to this statistic.

Human Geography Themes

In following a similar pattern to that established with physical geography themes, most schools surveyed covered the required programmes of study for Key Stage 3 human geography themes, the only minor exceptions being the environmental themes of water pollution and energy supply.

Resources

Table 4.4 illustrates the use of resources and ICT at Key Stage 3.

Table 4.4 Use of Resources and ICT at Key Stage 3[1]

Resources	**Percentage of Schools Using Resource[2]**
Text Books	100
Videos	100
Pictures	95
Aerial Photographs	93
Satellite Images	90
ICT	**Percentage of Schools Using Software[2]**
C D Roms	85
Word Processing for Geography	85
Spreadsheets	63
Mapping Packages	34
Desktop publishing packages	43

[1]Resources and ICT Software derived from the Geography National Curriculum of 1999
[2]Percentages calculated on a sample of 61 secondary schools

Although the survey data may obscure issues regarding the quality and quantity of resources in secondary schools, it is noteworthy that nearly all secondary schools are utilising the suggested resources of text books, videos, pictures, aerial photographs and satellite images at Key Stage 3. Only a minority of schools (predominantly in Charwell) are not using aerial photographs and satellite images. Ofsted (1999a), however, has drawn attention to the poor provision in terms of numbers of textbooks and atlases indicating that while resources are used, teachers are limited in their utilisation of them.

ICT

Far more variation is recorded with regard to the use of ICT in the Key Stage 3 curriculum. Mapping packages are hardly used at all within Bridgewood and Warwick LEAs, while desktop publishing is poorly covered in Charwell and Bridgewood LEAs.

While there will be whole school issues (especially finance) that account for such low usage, it is a matter for concern that, in comparison to all other aspects of the Key Stage 3 curriculum, ICT usage is not occurring in geography. Despite much promotion both within geography and at a national level, there is clearly a dearth of ICT in the geography curriculum - a situation that will need to be addressed if the Key Stage 3 curriculum is to be fulfilled. Such a conclusion concurs with Ofsted's statement made in 1999, reiterated in 2001 (Ofsted 2001b):

> 'The availability and use of information and communication technology is very variable between schools. At best the use is excellent and promotes improved understanding of geography through a wide range of applications. Elsewhere information communication technology means little more than word processing. Ineffective use results from both problems of access to hardware and software, and from the competence of teachers to use them...Progress in the effective use of information and communication technology varies from good to non-existent, despite the Key Stage 3 statutory requirement' (Ofsted 1999a p5).

Standards of Geography Teaching at Key Stage 3

For the most part, therefore, it is possible to conclude that the statutory requirements for Key Stage 3 are being fulfilled successfully in terms of subject content by secondary schools surveyed. Only in a small minority of cases are aspects of the programme of study not being addressed. As with primary schools, however, the questionnaire cannot establish the quality of teaching. Evidence from the case study schools highlights good geography being taught. At Colgreen Comprehensive School, for example, inspectors reported that:

> ‘Teaching is never less than satisfactory and is good or very good in almost three-quarters of lessons. All teachers have secure subject knowledge, all lessons are well planned with good coverage of curriculum requirements...The best teaching is characterised by high expectations and a brisk pace, as in a Year 8 lesson on rivers when pupils were expected to absorb information from a video and an information sheet and then use it to answer detailed questions.’ (Ofsted 1999g p4).

A similar illustration comes from Hawkswell Comprehensive School:

> ‘Teaching at Key Stage 3 is very good and some is excellent, promoting high educational standards. Teachers provide a range of interesting and challenging activities, matched to prior attainment, and which require thoughtful responses from pupils. In one year 9 lesson, pupils used recent newspaper articles to investigate a hypothesis connected with differential hurricane damage in the Caribbean. This lesson offered good challenge to which pupils responded and it moved at a good pace’ (Ofsted 1998b).

These individual cases, however, are not necessarily repeated across all schools. Ofsted (1999a) drew attention to there being ‘some subject weaknesses at Key Stage 3’(p2) despite teaching being ‘generally characterised by good subject knowledge’. Ofsted concluded that ‘Key Stage 3 geography is the weakest area of secondary geography’ (p3).

A significant factor in the poor delivery of geography at Key Stage 3 in some secondary schools appears to be the non-specialist subject teachers at Key Stage 3 (Ofsted 1998a, 1999a, 2001b), concurring with the findings of earlier Ofsted inspections (Ofsted 1995a) and Donert and Grimwade (1998). While the case study schools used in this research staffed their Key Stage 3 teaching mainly with geography specialists, the case study schools where teaching was described as ‘variable’ (Ofsted 1995a p22) saw geography teachers performing a number of other roles within the school.

Geography at Key Stage 3 is satisfying the requirements of the National Curriculum with standards of geography teaching considered to be good in many secondary schools. Ofsted (1999a) reported that progress was unsatisfactory in only 7% of schools at Key Stage 3 and have also recognised the sound knowledge and understanding that Key Stage 3 pupils possess of places and themes (Ofsted 1999b, 2000a). Nevertheless, there remains variability in the delivery of the curriculum at Key Stage 3 and its provision and use of resources. There is also the question of how well schools achieve continuity and progression within the Key Stage. Thus, it is necessary to consider the factors influencing the design of the Key Stage 3 curriculum in geography.

Factors Determining the Design of the Key Stage 3 Curriculum

A range of factors can be identified as influencing the design of the geography curriculum at Key Stage 3. While meeting the requirements of the National Curriculum was an overriding influence, although it is not perceived as necessary to adhere strictly to all its requirements. One head of geography, for example, commented:

> 'Obviously we are mainly directed by the National Curriculum. However, we have chosen to include good geography for its own sake. For example, we cover both volcanoes and earthquakes' (Head of Geography, Oakleigh).

The availability of resources (especially textbooks) and staff interests were also significant. Other factors included the lack of ICT provision limiting curriculum development, time, finance and the marketing of the subject for GCSE. Only 3 (5%) schools indicated fieldwork as the driving force in their curriculum planning, despite

Ofsted (1999a, 2001b) highlighting this as a way to achieve good quality teaching. This contrasts sharply with the expectations of pupils interviewed of the subject at Key Stage 3 and their experiences at primary school. Thus, to this extent, the following description given by Jenny Moore for the factors influencing Tillbrook's design of the Key Stage 3 curriculum is almost unique:

> 'One of the key factors is giving pupils a geographical experience, getting them outside the classroom. Certainly with a lot of our pupils, they have got fairly sheltered backgrounds, very limited geographical experiences of actually going out and seeing things and asking questions, so in virtually all out topics wherever possible we get them outside and we're doing local level field work, or slightly further afield, and also the development of key skills that will transfer to other subjects, thinking things through, asking questions, building up the ability to enquire over a topic rather than just accept the fact and take notes when prodded' (Jenny Moore, Tillbrook Secondary School).

In addition to those influences outlined, many schools looked to provide a balance between physical, human and environmental geography and build progression and continuity into their Key Stage 3 scheme of work. In some cases, this particular goal had received meticulous attention:

> 'Content described by the programme of study was organised to give a clear progression of skills through Key Stage 3. Subjects were scheduled to include a place in each year group and a good balance of physical and human themes. Initial Year 7 work has been designed to bridge the gap between primary and secondary schools. Some themes cover all years to reinforce concepts' (Head of Geography, Charwell).

The successive reductions in content that the revisions of the Geography National Curriculum have brought about, has enabled teachers to feel more confident in the delivery of the Key Stage 3 scheme of work. Case study interviews suggested that most

secondary school geography departments feel able to deliver the Key Stage 3 curriculum, and schemes of work are not so driven by content. In this context it is appropriate to analyse the response of secondary schools to the QCA schemes of work for Key Stage 3.

Use of QCA Schemes of Work at Key Stage 3

Given the more specialist qualifications of secondary school geography teachers, it is perhaps not surprising to find more teachers willing to provide their own interpretation of the National Curriculum and how this should be translated into a scheme of work for the classroom. The publication of QCA schemes of work for geography at Key Stage 3 (QCA 2000a) have, therefore, not received the same enthusiastic welcome as those for Key Stage 2. Indeed, while no teacher criticised the schemes, most saw them as an additional resource that could be used to supplement their existing schemes of work as the following examples illustrate:

> 'I would use them as maybe a tool to look at particular areas, let's say assessments, teaching limits, strategies, that sort of stuff. I think they'll be quite a good assistance but they won't be the thing we use in its entirety, but I will try and blend ideas of that into ours' (Tom Evans, Crowhill Comprehensive School).

> 'I will simply just see if any fine tuning needs to be done, for example with ICT and in the new curriculum what the meaning of geography is supposed to be in things like citizenship, economic awareness. I'll be doing some fine tuning, but really I am following what was required five years ago when the curriculum was last changed' (Chris Hall, Honeyhill Secondary School).

Meanwhile, in contrast to the Key Stage 2 schemes of work, LEA advisors interviewed believe the QCA Key Stage 3 publication has much to recommend it, although not

necessarily in terms of enhancing progression throughout the key stage. Matthew Steele, for example, believes the schemes are ‘strong on improving teaching and learning’ but not so well written for enhancing progression.

The Geography National Curriculum, therefore, is still seen as the main reference document for planning schemes of work at Key Stage 3. Secondary school geography departments prefer to use their own expertise in formulating schemes of work rather than rely upon the those published by QCA. Given that the revision to the National Curriculum in September 2000 allowed more flexibility rather than less, and that for Key Stage 3 the changes in content to be taught were minimal, then many secondary schools have opted to retain and where appropriate modify their existing schemes of work, for which at least five years of resourcing will have taken place since the last major change to the Geography National Curriculum. Iwaskow (2001), however, contends that many secondary schools have ignored the QCA schemes at Key Stage 3 feeling that they are radical and inappropriate for a geography course.

The independence shown by secondary school geography departments in producing their schemes of work may well be hindering more effective continuity and progression. Indeed, Ofsted (1999a) warned against overlooking the guidance material such as QCA schemes of work:

> ‘Poorly constructed schemes of work hinder the continuity and progression of skills and ideas which lead to higher National Curriculum levels...some schools...take insufficient notice of SCAA and QCA guidelines (Ofsted 1999a p5).

As with Key Stage 2, therefore, there seems a need to re-examine schemes of work at Key Stage 3 in the light of new guidelines, and provide teachers with greater professional development in this area, to help ensure that continuity and progression are more integral and achievable, especially given that Ofsted (1999a) observed that one quarter of schools professional development at secondary level in geography is unsatisfactory.

Conclusion

The teaching of geography at Key Stage 2 has steadily improved throughout the life of the National Curriculum and continues to do so, especially in Years 5 and 6 (Ofsted 1993, 1995a, 1996a, 2000a). Geography is delivered far more as a stand-alone subject although many primary schools still favour a topic based approach combining with other areas of the curriculum. Respondents to the questionnaire survey indicated, in terms of content at least, that the requirements of Key Stage 2 Geography National Curriculum in the summer of 1999 were being fulfilled. While content coverage does not necessarily manifest itself in good teaching, it is possible to cite examples of good practice at this level.

Such examples are, however, not necessarily replicated nationally or even with consistency across the Midlands region. Hence the conclusion that the delivery of the geography Key Stage 2 curriculum remains ‘variable’ (Ofsted 1999b). A conclusion supported by Alcock’s (2001) experiences of geography teaching in primary schools in

Kent and commentators such as Grimwade (2001a, 2001b) and Rawling (2000c) who feel geography at Key Stages 1 and 2 is being marginalised within the primary curriculum.

Despite this conclusion, nearly all pupils entering Year 7 will have experienced geography at Key Stage 2, and as such secondary school teachers should be planning their Key Stage 3 course as a continuum from the primary experience. In practice, however, findings in Chapter 5 suggest that little attention is being paid to the Key Stage 2 curriculum. It is significant that very few secondary schools perceived a need to respond to the suspension of the statutory requirement to fulfil Key Stage 2 in its entirety, confirming this attitude to the design of a Key Stage 3 scheme of work. It is interesting also, that the suspension itself did not adversely affect the delivery of the geography in primary schools in terms of content coverage, reflecting a degree of curriculum inertia. Thus attempts at improving continuity and progression between the primary and secondary phase should not have been hindered by the period of time from January 1998 until September 2000. While geography, along with other foundation subjects, has experienced pressures from changes in the primary curriculum (Grimwade 2001a, 2001b, Rawling 2000c, Turner 2001) where the impact has been mainly negative (Matthews 2000), it is still being delivered and thus ways of ensuring quality in that delivery need to be addressed.

A pre-requisite to achieving improved continuity and progression between Key Stage 2 and 3 is a need to reduce the disparate experiences that pupils in the primary phase currently experience. For progress to be made in this area, the way in which the

geography curriculum is interpreted and delivered, as well as the role of the geography coordinator is crucial. There is also the broader question of geography's status (compared to the core subjects) which may have to improve before the Department for Education and Skills (DfES), QCA and Ofsted to respond more readily to the variability in pupils' entitlement to geography.

Ofsted have drawn attention to the association between detailed schemes of work and good quality geography teaching (Ofsted 1999a). At Key Stage 2, however, the design of schemes of work are influenced by numerous factors, and in particular the usage made of the QCA schemes of work, with some schools adopting these as their scheme of work while others are only utilising them in part. In many cases, the intended use of such schemes is misunderstood (Rawling 2000a, Westaway 2001), and there is clearly a need for greater professional support to help teachers interpret the National Curriculum and help utilise the schemes of work in the best possible way. The current situation results in a mixture of schemes of work at Key Stage 2, although a greater degree of content consistency between schools is likely to be observed in future years, questioning the usefulness to Key Stage 2 teachers of the Geography National Curriculum itself. If greater uniformity were to result from adoption and usage of the QCA schemes, it is possible that secondary school teachers might be more willing to seek continuity and progression from Key Stage 2 in their interpretation of the Key Stage 3 curriculum.

For most primary schools, the geography coordinator retains responsibility for the drawing up and delivery of the Key Stage 2 scheme of work. Geography coordinators are

pivotal not only in curriculum design but also in promoting the subject in general and ultimately in enhancing cross-phase linkages. Ofsted (2000a) has recognised this importance by the recommendation for geography coordinators to receive more professional development and time to carry out their responsibilities. Yet geography coordinators have little or no non-contact time and frequently have responsibility for other subject areas. In addition, most coordinators are likely to be newer, younger members of staff, who may not remain in the same role for any great length of time, making regular professional development a necessity. Geography coordinators also receive little specialist training during their acquisition of teaching qualifications (Morgan 1995, Essex-Carter 2001, Westaway 2001), such that subject knowledge can be very superficial unless geography has been pursued to a high level as part of their educational studies. The alteration of the funding arrangements for LEA advisors has removed a major source of professional advice as well as reducing the allocation of finances to general INSET training. If standards are to be raised in geography teaching and variability reduced across Key Stage 2, then guaranteed INSET and funding, possibly for foundation subjects in general, will be required in order to implement Ofsted recommendations (Ofsted 2001a, Rawling 2000a). It is possible that a new professional development scheme announced in 2001 (DfEE 2001) may provide resources to achieve this, although how much geography coordinators will benefit from this scheme remains to be seen.

While standards of teaching and learning are considered to be higher in geography at Key Stage 3 compared to Key Stage 2 (Ofsted 1999b), Key Stage 3 is still regarded as having

much room for improvement, not only in comparison to other subjects, but also in terms of the progress made by pupils and the quality of teaching (Ofsted 1999a). While retaining its identity as a separate subject and fulfilling the content of the Key Stage 3 National Curriculum, secondary school geography departments need to re-evaluate their teaching schemes to ensure good practice is maintained throughout the Key Stage (Westaway and Rawling 2001). In addition, Key Stage 3 geography is likely to come under similar curriculum pressures to those experienced at Key Stage 2 with the introduction of Citizenship and literacy and numeracy strategies (Grimwade 2001a), even though many aspects of the former could be taught within geography (Rawling 2000a, 2000c), and proposals for changes to Key Stage 3 in general which could include designating geography an optional subject from the age of 12 (Grimwade 2001b, Slater and Henry 2001).

Primary school geography has improved its planning and delivery in comparison to the dismal conclusions of the Primary Education in England report published in 1978 (HMI 1990 see Chapter 2). Nevertheless there remains elements of criticisms highlighted by Binns (1996), Wiegand (1993) Morgan (1995) and Smith (1997a) still present today, especially regarding the way the subject is delivered at Key Stage 2. Much work remains to be done in improving Key Stage 2 geography, but improvements are also required at Key Stage 3. It is essential that as the subject continues to evolve in these distinct phases, attention is paid to achieving continuity and progression in pupils' geographical experience as they transfer from primary to secondary school.

Chapter 5

CONTINUITY AND PROGRESSION WITHIN AND BETWEEN KEY STAGES 2 AND 3 IN GEOGRAPHY

The importance of establishing continuity and progression as an integral part of the Geography National Curriculum within and between Key Stages was outlined in Chapter 2. In considering continuity and progression within and between Key Stages 2 and 3 in geography it is possible to draw on the findings of the questionnaire survey, specific examples from the case study schools and other research findings provided by commentators in this area. Prior to considering curricula continuity between Key Stage 2 and 3, continuity and progression within these respective Key Stages will be evaluated.

Continuity and Progression Within Key Stage 2

Questionnaire returns indicated that while planning continuity and progression within Key Stage 2, a number of primary schools tie in their schemes of work with geography undertaken in Key Stage 1, as for many schools Key Stage 1 is taught within the same school. To this end, continuity and progression often is considered across both Key Stages as a whole and not as two distinct entities. Indeed, of the primary schools used as case studies in this research, only Bromswold Junior School operated as a distinct Key Stage 2 school. While the focus of this study is at the Key Stage 2 and Key Stage 3 interface, it is interesting to note that Nicola Brown of Bromswold Junior School has

identified the transition between Key Stage 1 and Key Stage 2 as a problem area as well, and a number of difficulties have emerged for this particular school in ensuring continuity and progression between Key Stages 1 and 2.

By far the most popular way of achieving continuity and progression within primary schools is through skill development and the broadening of scale in the study of places. In the study of place, in particular, attention seems to be have been paid to a logical progression of scale (Table 5.1). Starting with the most familiar, the local area of the school, there is a gradual decrease in schools revisiting this topic in later years of the Key Stage. The introduction of localities elsewhere in the United Kingdom and in a developing country came almost equally in Years 4, 5 and 6. Individual LEAs followed these general patterns.

The following examples would seem to be typical of many primary schools:

> ‘Progression is built in because at Key Stage 1 they look at the local area. The local area consists basically of the school grounds, the school and just the very neighbouring streets around the school. Then at Key Stage 2 it is again looked at but the whole of the town of Warwick is looked at as a local area and a traffic survey done, they do a survey of land use, transport links of Warwick and other major centres, how Warwick developed as a town. We then look at Egypt as a far away place’ (John Richardson, Galsey Primary School).

> ‘During Key Stage 1 they’ll start mainly with their classroom and then the school itself and then the area that they live in. At Key Stage 2 they begin with the area that they live in and look at that within a wider context. We do our UK study, but it is not until Year 6 that we’re actually looking at the wider world’ (Louise Matthews, Woodleys Junior School).

There would also appear to be a real attempt at broadening the locational experience of pupils, starting with the places most well known to them and gradually progressing to unfamiliar environments. As such, this approach concurs with the need to have a broadening of scale, moving from familiar to unfamiliar, near to more distant places cited as desirable in achieving progression within a geography curriculum (DES 1986, Marsden 1995, Rainey and Krause 1994, Waters 1998, Williams 1997).

It would also appear that continuity and progression are well established with regard to geographical skills at Key Stage 2, as Table 5.1 illustrates. This is especially so with making plans and maps at a variety of scales and atlas usage. The good practice of reinforcing and building upon skills already acquired would seem, therefore, to be evident here and to a lesser extent with the other skills covered. Such trends are also evident within the individual LEA figures. 38 (63%) of Charwell's primary schools sampled, for example, cover mapping and use of symbols and scales throughout Key Stage 2, while in Greendale 18 (49%) ensured pupils used the contents and index page of an atlas in Years 3,4,5 and 6.

Table 5.1 Continuity and Progression of Place and Skills within Key Stage 2[1]

Places - Regional Totals																
Year(s) Covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
Study of local area of the school	0	36	4	1	8	24	11	8	1	1	4	20	1	3	0	5
Study of locality elsewhere in UK	8	9	26	25	13	8	1	4	0	0	2	13	5	3	1	10
Study of locality in a developing country	6	6	22	26	16	11	2	4	0	0	1	8	3	5	4	13

Geographical Skills																
Year(s) Covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
Make plans and maps at variety of scales using symbols and keys	5	7	2	2	1	4	2	2	1	3	4	75	1	3	10	5
Understand how to use and give four figure grid references	7	1	10	12	19	7	2	1	0	1	0	9	6	2	14	36
Be able to measure direction and distance	20	3	6	12	23	2	0	0	1	1	0	16	2	0	15	26
Using a contents and index page of an atlas	4	13	6	4	0	12	2	1	2	1	0	61	7	0	7	7

[1] Using place and skill elements from the Geography National Curriculum of 1999 and using data from 130 primary questionnaire returns.

Continuity and progression of skill development is integrated into the topics covered (Table 5.1). Bromswold Primary School, for example, use aerial photographs of the school to assist with initial local area studies as well as introducing map reading skills in Year 4 when learning about local services.

Overall, it would appear that Key Stage 2 skills are well covered in the schools surveyed. Continuity and progression are evident, and it would appear that a genuine attempt is made to build upon pupils' previous experience. Bennetts (1981, 1986, 1995a), the DES (1986), Newby (1995), Rainey and Krause (1994), Waters (1998) and Williams (1997) have all highlighted the importance of revisiting skills in achieving progression. It is not

possible, however, to say with certainty that skills covered in a number of years at Key Stage 2 are always built upon. Use of an atlas, for example, may be applying the same skills already covered in other work. Evidence from the questionnaire returns and case study material, however, tends to suggest that in many skills, especially map work, previous experience is not only being reinforced but also being developed. One Bridgewood primary school, for example, divided skills between the four Key Stage 2 years so that each skill was visited twice. At Keysoe Junior School, new schemes of work and the monitoring of the geography coordinator were expected to 'ensure that previous experience is built upon and that pupils' skills are developed in a consistent way in each year group' (Sue Nicholls, Wittington Oval Junior School).

Yet conversely, Ofsted (1999b) reported that geographical skills were not practised sufficiently or consolidated when used as part of investigative work. Even given this conflicting evidence, primary school pupils are being introduced to the required range of geographical skills. Secondary schools need to respond to this by ensuring the Key Stage 3 course builds upon skills already introduced and does not merely repeat them (Bailey 1987b).

Continuity and progression through other programmes of study was far less prevalent in Key Stage 2, as Table 5.2 shows. Indeed, physical geography themes, in particular, tend to be visited only once in the Key Stage.

A similar situation is to be found with the teaching of human geography themes. Teaching of programmes of study in individual years was once more favoured, although a significant minority of schools attempted some form of continuity and progression within the Key Stage. This was especially so with environmental themes.

Table 5.2 Years Where Thematic Studies are Taught at Key Stage 2[1]

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How rivers erode, transport and deposit material	5	8	17	32	33	8	1	1	0	1	1	3	0	2	0	15
Landforms associated with river channels	22	8	17	26	31	4	1	1	0	0	0	1	0	1	0	15
How site conditions influence weather	26	22	18	18	14	10	2	1	0	0	1	4	4	1	1	5
Seasonal weather patterns	6	35	22	18	6	15	3	1	0	1	1	11	3	0	0	5
Settlements vary in size	12	13	14	5	11	14	5	5	3	3	2	24	4	1	4	7
Settlements have different functions	15	9	19	4	11	9	5	5	4	1	2	20	4	0	4	15
Conflicts over use of land in settlements	22	5	13	10	22	5	1	4	1	1	1	10	4	4	8	15
Reasons for location and growth of settlements	18	6	13	8	11	7	3	4	3	2	2	21	3	3	4	20
How people affect the environment	6	5	5	11	24	4	2	3	3	0	2	32	5	5	3	17
How people manage the environment	15	2	5	11	27	3	2	2	2	0	2	14	7	6	4	25

[1] Using themes from the Geography National Curriculum of 1999 and using data from 130 primary questionnaire returns.

With regard to ICT and resource usage this occurs, in the main, across all of Key Stage 2. A noteworthy feature of ICT usage, for example, was its adoption throughout the Key Stage. 60 (46%) schools, for example, undertook word-processing for geography in Years 3,4,5 and 6. Meanwhile, no less than 98 (75%) of schools use the suggested resources for Key Stage 2 (text books, videos, pictures, aerial photographs) in Years 3,4,5 and 6.

There would appear to be real evidence that primary schools are planning their curriculum with continuity and progression as integral components of their schemes of

work. While planning has a tendency to be centred around skill and scale development, there is some evidence that the geography curriculum is being extended to other areas. At Bromswold Junior School for example, Ofsted (1999c p31) reported that 'pupils are able to recall events from previous topics'. The outcome of these efforts is a clear structure through which pupils build up their geographical knowledge. Thus, this summary of one primary school's curriculum encapsulates the current level of continuity and progression in most primary schools throughout the region:

> 'Map skills are covered in every year group with each year group building on what has previously been taught. Every year group studies one theme ie weather (Year 3), settlement (Year 4), environment (Year 5), rivers (Year 6). Every year group studies a place' (Geography Coordinator, Charwell).

There remain, however, grave concerns regarding the successful integration of continuity and progression into the geography curriculum at Key Stage 2. Ofsted (2001a p2) reported that 'in only two schools in ten does an effectively planned and well-delivered curriculum enable pupils to build well on earlier learning, make good progress and reach good standards'. The time allocation and organisation of the primary school curriculum restrict coverage of other programmes of study to just once in the curriculum. This trend may also be rooted in the legacy of the earlier versions of the National Curriculum. Graves et al (1990b) in particular considered that progression was tied into teaching discrete content at different levels. In a similar way, Bennetts (1994b, 1994c), Carter (1994) and the Geographical Association (1994), questioned why statements of attainment were not building upon each other and how the criteria for progression was not comparable to level descriptions and should be tied to conceptual understanding.

Such criticisms were also voiced from other curriculum areas. In Key Stage 2 science, for example, level descriptions are considered to be 'little help in monitoring formative assessment and progression' (Sorsby 1995 p111), while Adey (1997 p384), commenting upon the National Curriculum in general, feels that by using 'bland, holistic Level Descriptors...the issue of progression has simply been fudged'. With Adey (1997) and Daugherty (1996) postulating that progression as a concept was still to be defined, and that the personal nature of pupil development in terms of learning makes integrating an overall progression structure into the curriculum difficult, it is not surprising that throughout the history of the Geography National Curriculum progression at Key Stage 2 has been focused on skill and scale development with possibly the notion that coverage of discrete content in itself represents progression. In so doing, the sequencing of learning activities and, more generally, the principles of progression to enhance children's learning in a scheme of work (QCA 1998b) have received only cursory attention. According to Newby (1995 p35) the very nature of the Geography National Curriculum does not allow for progression as 'geography, like all subjects, contains a number of fields and topics, the connections between which are not apparent at the level of school education, if they exist at all'. This results in curriculum discontinuity, but Newby (1995 p35) feels this need not be negative 'because the psychological effect of the "now for something completely different" tactic is invigorating and relieving'.

Continuity and Progression Within Key Stage 3

As with Key Stage 2, it is appropriate to first consider where the Key Stage 3 entitlements and themes of the Geography National Curriculum are taught in relation to the three school year groups of the Key Stage as indicated by respondents to the questionnaire survey.

Skills

The teaching of skills at Key Stage 3 falls into two main categories. There are those schools (the majority) which teach the required skill elements in one year (predominantly Year 7). A second group of schools ensure skill development throughout the Key Stage teaching in all three school years. Table 5.3 illustrates these trends.

Table 5.3 Years Where Skills are Taught at Key Stage 3[1]

Year(s) Covered	7	789
Make plans and maps at variety of scales using symbols and keys	7	21
Understand how to use and give four figure grid references	34	16
Be able to measure direction and distance	34	22
Using a contents and index page of an atlas	26	24
Be able to use 1:50,000 OS Map	20	28
Be able to use 1:25,000 OS Map	19	20
Understand how to use and give six figure grid references	20	21
How to draw an annotated sketch map from an OS Map	18	17
How to draw cross-sections from OS Maps	9	6
Use graphs to present geographical information	8	26
Locate places in an atlas	8	45

[1] Using skill elements from the Geography National Curriculum of 1999 and using data from 61 secondary questionnaire returns.

The inference from such figures is that many schools devise a Key Stage 3 curriculum starting with skills that may not be returned to again during the Key Stage, despite such a return being desirable to facilitate progression (Bennetts 1996, DES 1986). It is commendable, therefore, that many schools do integrate skills into each year's scheme of work, but the fact that only 'locating places in an atlas' receives this coverage in more than half of secondary schools illustrates the practice could be far more widespread than currently is the case. The figures are also indicative of a traditional secondary school geography course, devoting the first term to skills work before exploration of other geography themes. Consideration of practice in the case study schools proved this still to be the case as well as evidence provided from Ofsted inspections (Iwaskow 2001). That some essential geographical skills are not revisited at all during the Key Stage (notably use of OS maps and grid reference work) must question the thought that has been taken to achieve continuity and progression in these areas.

Places

There is a noteworthy progression of scale in the teaching of places (Table 5.4). There is little desire, however, to revisit place studies in different years. Similar trends are observed for other place themes throughout the four LEAs. There is some attempt at revisiting topics with the study of localities, although these could well be as a part of a large topic of a country study.

Table 5.4 Years Where Places are Taught at Key Stage 3[1]

Year(s) Covered	NC	7	8	9	78	79	789	89
Study of local area of the school	5	45	0	0	5	3	3	0
Study of locality elsewhere in UK	11	8	6	4	6	2	14	10
Study of locality in a developing country	0	6	18	13	2	3	4	15
Study of developed country outside UK	1	2	15	24	1	2	4	12
Study of a developing country	0	5	21	17	1	2	3	12

[1] Using skill elements from the Geography National Curriculum of 1999 and using data from 61 secondary questionnaire returns.

Physical and Human Geography Themes

The extent of progression in physical and human geography themes at Key Stage 3 is shown in Table 5.5. The overriding trend with regard to both physical and human geography themes is that of coverage once in a single year group. Overall, the later Key Stage years are favoured for physical geography themes which could reflect a desire to leave what traditionally has been thought of as more challenging material until the later years or more subtle reasons, such as teaching earthquakes and volcanic eruptions to excite pupils prior to their GCSE choices. Development issues represents the only human theme where significant attempts to achieve continuity and progression have taken place. Of all the themes covered (both human and physical) it is economic geography that appears to be least compartmentalized into the early or later years of Key Stage 3.

Table 5.5 Years Where Thematic Studies are Taught at Key Stage 3[1]

Year(s) Covered	NC	7	8	9	78	79	789	89
How rivers erode, transport and deposit material	6	9	33	8	1	2	0	1
Landforms associated with river channels	6	9	34	10	0	1	0	1
The water cycle	2	19	22	4	10	1	1	2
The drainage basin system	6	12	31	8	1	2	0	1
Causes and effects of river floods	5	12	26	12	2	1	1	2
The formation of coastal landforms	30	5	16	10	0	0	0	0
Causes and effects of cliff collapse or coastal flooding	36	4	13	8	0	0	0	0
The characteristics and distribution of one type of vegetation	4	6	25	21	2	0	0	3
Processes associated with movement of tectonic plates	2	4	14	39	0	1	0	1
The causes and effects of earthquakes	3	4	16	37	0	0	0	1
The causes and effects of volcanic eruptions	2	5	16	36	1	0	0	1
How site conditions influence weather	3	30	15	5	3	3	2	0
Seasonal weather patterns	7	17	16	11	1	10	1	1
How weather and climate differ	1	24	18	7	4	5	0	2
Identify differences in development between countries	0	1	11	21	1	5	3	18
How differences in development affect the quality of life	0	1	10	25	0	3	3	19
Difference between primary, secondary and tertiary	0	8	19	14	5	5	8	2
Study one form of economic activity	0	14	18	10	5	4	9	1
The effects of changing distribution of this economic activity	8	10	18	12	2	3	4	4
How people affect the environment	2	0	6	15	4	7	17	10
How people manage the environment	1	0	8	17	5	6	10	14
Unintended effects of managing the environment	11	0	9	15	3	7	4	12
Why areas are of great scenic attraction	5	3	9	27	3	3	4	7
Conflicts arising from managing the environment	2	4	8	25	4	6	3	9
Provision of fresh water supply	9	13	22	12	2	1	1	1
Causes, effects, and prevention of water pollution	10	10	22	16	1	0	1	1
Provision of energy supply	13	3	17	24	1	0	0	3
Environmental effects of different energy sources	12	3	16	25	1	1	0	3
Global distribution of population	1	3	22	34	0	0	0	1
Causes and effects of changes in population sizes	2	1	18	33	1	1	1	4
Causes and effects of migration	2	1	17	32	2	1	0	6
Settlements vary in size	0	38	10	3	2	2	5	0
Settlements have different functions	0	38	11	3	2	3	3	0
Conflicts over use of land in settlements	4	22	13	6	2	7	4	2
Reasons for location and growth of settlements	2	38	10	3	2	1	4	0
How types and variety of goods and services vary in settlements	8	30	11	5	2	1	3	0
Different types and patterns of urban land use	4	24	10	9	5	5	2	0

[1] Using skill elements from the Geography National Curriculum of 1999 and using data from 61 secondary questionnaire returns.

Thus, responses to the questionnaire survey suggest that curriculum planning at Key Stage 3 would appear, with the notable exception of skill development and scale of places studied, limited in its attempt to achieve continuity and progression within the key stage. The following rationale was attached to one Key Stage 3 scheme of work submitted with the questionnaire survey:

> 'The Key Stage 3 course is thematic in approach for all 3 years. The overall structure is based on the model of working from the pupil's local environment through to the global/international environment thus increasing the scale and complexity of the subject as well as broadening the focus. The course has been designed so that it includes both physical and human topics in every year using an issue-based or enquiry –based approach whenever appropriate. Geographical skills of increasing complexity during Key Stage 3 are taught throughout all units of work.'

References to continuity and progression are implied in terms of increasing complexity of scale, topic and skills, with thought being given to the order in which topics are visited, with material considered more conceptually difficult being left until Years 8 and 9. As such this concurs with principles of progression, with increasing complexity of content and concepts being introduced as pupils move through their schools (Adey 1997, Bennetts 1986, 1996, Newby 1995, Rhys 1972, Rainey and Krause 1994, Watts and Grosvenor 1995). There is no reference, however, to the need to plan for and build upon previous learning or indeed to revisit topics throughout the Key Stage.

Some schools are also trying to revisit topics within the Key Stage. Crowhill Comprehensive School, for instance, has tried to cover certain topics by revisiting an aspect of that topic each year, such as teaching about the climate of rainforests in Year 7 and revisiting climate in Year 8 in the context of a county study of Kenya.

In practice, however, such examples remain very limited. There is also selective evidence that geography departments at Key Stage 3 are not adequately focused on achieving continuity and progression, as the following extracts from inspection reports illustrate:

> 'The full potential of several lessons is not being realised by...an absence of clear learning and assessment objectives which go beyond content and coverage...Formal strategies which monitor and evaluate the effectiveness of the curriculum need to be established and implemented quickly. This would inform the review of units of work which is essential to promote continuity and progression and to address the key issue of creating imaginative and challenging tasks and activities to meet more fully the needs of all pupils. A manageable, informative and rigorous process for assessment integral to the developments of teaching and learning styles' (Ofsted 1995b p22).

> 'At present there is insufficient management focus on the planning and organisation required to make sure that the subject is appropriately developed from Year 7 to Year 11. The proposed introduction of pupil self-assessment and greater use of QCA assessment material will show what pupils can achieve' (Ofsted 1999h).

Implicit in both of these comments is the need for monitoring and assessment of the Key Stage 3 curriculum. Bennetts (1995a) and Chambers and Donert (1996), in defining progression, postulated that only through such planning, monitoring and assessment can progression be effectively achieved. Thus, while many schools design their Key Stage 3 curriculum with the intention of encompassing continuity and progression, it is possible that the methods for ensuring that pupils' learning advances - the focus of progression (Bennetts 1995a) - are not integral to the design. As with the Key Stage 2 curriculum, teachers may not fully understand the concepts of continuity and progression (Adey 1997, Daugherty 1996). In accounting for this lack of progression and continuity, Matthew Steele, LEA Geography Advisor for Charwell, cites the focus given by many

secondary school geography departments on the external examination years for GCSE and A level rather than Key Stage 3. This neglect of Key Stage 3 has been made worse by the short period of time over which recent changes in the curriculum at these levels have been introduced (Iwaskow 2001). Matthew Steele also considers the quality of Key Stage 3 textbooks as an important secondary factor in not encouraging continuity and progression.

Key Stage 3 remains for most pupils, therefore, a series of topics covered but never revisited. A typical example of a Key Stage 3 curriculum is shown in Appendix 5. This scheme of work portrays many of the features already identified, including the lack of continuity and progression within the Key Stage as topics are covered only once. The principal reason for not revisiting topics taught within the Key Stage is that of time:

> 'There isn't time to do that. In the old days we used to do Britain in the first year, Europe in the second and the world in the third and do the same topics, but now with Key Stage 3 we do weather and climate in year 7 and do not revisit it until they get to GCSE' (Debbie Dixon, Hawkswell Comprehensive and Community College).

As with Key Stage 2, time, progression being tied to discrete content at different levels and inadequate tying of statements of attainment to level descriptions (Adey 1997, Bennetts 1994b, 1994c, Carter 1994, Geographical Association 1994, Graves et al 1990b, Sorsby 1995) can all be cited for a partial explanation for the lack of continuity and progression within Key Stage 3. Inspection evidence also cites a lack of understanding of how continuity and progression should be achieved or indeed if teachers themselves understand the concepts (Williams 1997). Thus, while most secondary schools have

detailed schemes of work in place, questions need to be raised regarding their appropriateness if continuity and progression are to be integral to the Key Stage 3 experience, although as Newby (1995) comments the geography curriculum fosters discontinuity to some extent.

Continuity and Progression Within Key Stages 2 and 3 – A Conclusion

Within Key Stages 2 and 3 there is a tendency for continuity and progression to be linked to content. While this is not in itself contrary to aspects of continuity and progression – Owen and Ryan (2001) include consideration of the content to be taught over the medium to long term as integral to planning for progression – there appears to be very little thought given to the way in which children's learning is planned for and developed. As such schemes of work at both Key Stage 2 and Key Stage 3 are not responding to the guidance given by QCA (see Figures 2.2 and 2.3, Chapter 2). If Newby's (1995) comments on the difficulty of achieving progression because of the nature of the topics taught in geography are accepted, then primary and secondary schools need to reappraise their approach to progression. Bennetts (1995a, 2001), Owen and Ryan (2001) and Taba (1962) have all stressed that progression in a pupil's individual learning need not be tied to the content studied. To this end, both primary and secondary school geography teachers may need to look more at the methods of teaching and the ways that pupil learn rather than the content covered.

One vehicle for such an approach might well be the 'thinking skills' approach to teaching (Higgins 2001, Leat 1998). In describing the rationale for a thinking skills curriculum, Leat (1998) addresses directly the dominance of content in seeking progression in geography:

> 'The National Curriculum has had the unfortunate effect of making teachers play safe and cover content. Some of what was good in geography has been lost…We believe there is a need for a reappraisal of the geography curriculum. Instead of trying to produce a curriculum that most students can cope with, there is a strong case for building a curriculum that changes the learner, so that they become effective learners' (Leat 1998 p158).

Designed to 'put challenge back into learning', to 'develop foundation concepts and connections between concepts' and to 'make pupils (and teachers) talk and think about learning' (Higgins 2001 p1) – a concept termed metacognition - the thinking skills approach has the potential to enhance progression greatly. Leat (1998) adopts a constructivist approach in that teaching should 'start where the pupils are at' (Leat 1998 p158) with understanding about pupil learning being the priority. Integral to this approach is 'bridging and transfer'. That is, 'what students learn in one context they will be able to transfer to and use in another' with the teacher encouraging 'the students to see connections between what they have done and learned in this lesson and other contexts' (Leat 1998 p162). In providing a range of examples, Higgins (2001) demonstrates how, at primary level, geography can be part of a cross-curricular development of a thinking skills approach and as such achieve progression as the complexity of learning activities are increased by revisiting and refining teaching methods in the classroom. While more

research will be required at both primary and secondary level to assess the potential of enhancing progression through this approach – Catling (2001a) acknowledges that this type of learning strategy is only now being introduced in geography – it does provide one model that may be followed in reappraising how best to integrate progression into the geography curriculum.

Continuity and Progression Between Key Stages 2 and 3

Achieving continuity and progression between primary and secondary schools requires an understanding of the fact that pupils are moving onto the next stage of their geographical experience and that they should already have a firm grasp of geographical concepts and skills as laid down by the National Curriculum.

Teacher Perceptions of their Respective Phases

Unfortunately there would appear to be little attention given to the fact that Key Stage 3 continues onwards from Key Stage 2. Indeed, it would appear that both primary and secondary teachers consider Key Stages 1 and 2, and Key Stages 3 and 4 as two quite distinct educational experiences. As such, there is a tendency amongst primary teachers to ignore or consider unimportant what happens at Key Stage 3. (A reciprocal view of Key Stages 1 and 2 also exists among secondary school teachers, reinforced by the disapplication of geography from January 1988 – September 2000 at this level.) The following comment illustrates this attitude:

> ‘I don’t take any interest really in what they do at Key Stage 3. We meet the requirements for Key Stage 1 and 2 and feel we’ve adequately taught the basic skills and the concepts at that age’ (John Richardson, Galsey Primary School).

There is, however, a question of whether this lack of knowledge is purely a disinterest or a more fundamental weakness in the educational system that does not disseminate information that might be relevant to both primary and secondary schools. For example, Louise Matthews made the following comment:

> ‘I have a very sketchy knowledge of the Key Stage 3 curriculum and no idea how what we do helps them, if at all, or whether there is any sort of progression or continuity’ (Louise Matthews, Woodleys Junior School).

However, Louise Matthews also highlighted the dearth of information that is received by primary schools on Key Stage 3. When geography documentation, such as the Key Stage 2 schemes of work are published they are sent automatically to primary schools, and as geography coordinator would be referred to her immediately. Key Stage 3 documentation, however, does not arrive which necessitates finding out about such relevant publications ‘on your own initiative’. Spanoak Primary School have made, albeit small, attempts at progression between Key Stage 2 and 3. By carefully considering the QCA literature they have avoided teaching China and Japan in their distant places work as these can be covered in Key Stage 3.

The separation of the curriculum into two distinct educational phases is also prevalent amongst secondary school teachers. Year 7 is seen by most teachers as representing a 'fresh start' for pupils:

> 'Our main focus when they come at Year 7 would be almost taking them as a blank sheet of paper having very little prior knowledge, assuming that a lot of them will have done geography within other subjects and not as a single subject at Key Stage 2' (Jenny Moore, Tillbrook Secondary School).

Reasons for Teacher Perspectives on Continuity and Progression between Key Stages 2 and 3

This comment, apart from confirming this perception of two distinct phases, illustrates the need to explore more deeply the reasons for secondary teachers' approach to continuity and progression across Key Stages 2 and 3. This involves considering practical reasons for not considering the Key Stage 2 curriculum, and the assumptions regarding prior learning, knowledge and skills that secondary teachers make about pupils arriving in Year 7, and as a consequence what work takes place as a result.

One of the major reasons for the adoption of a fresh start approach at Key Stage 3, comes from the variety of geographical experiences that pupils in Year 7 appear to have received. While there tends to be recognition that geography has been delivered, the detail in which certain topics and skills are being taught at primary schools shows marked variation (Iwaskow 2001,Ofsted 1999b). As Ofsted (2001b p3) comments, 'this diversity

presents difficulties for secondary schools in ensuring curricular continuity and progression in Key Stage 3'.

In responding to being asked about the knowledge and standard of skills Year 7 pupils brought with them from primary schools, Jenny Moore and Richard Smith made the following observations:

> 'Its completely mixed, some having done a lot of geography, some having received the bare minimum. If you take Year 7 when we do map skills, kids can do competently four figure grid references and have heard of six figure grid references but it is pretty basic. The same with atlas skills, some of them have seen atlases but they haven't got used to using them. With topics, some of them will know key terms and know key information and be able to get to grips with vocabulary quickly and others have done very, very little' (Jenny Moore, Tillbrook Secondary School).

> 'Its so patchy, it really is. Like most geography departments in the city we actually start with small atlas skills, map work units and the response is, I would say, a third of them have done quite substantial chunks of that work – others have literally done nothing at all. We're sort of starting from the base level like compass directions, maps, map of the world and yet others will have moved into six figure grid references and even in one case were able to do quite detailed cross-sections from OS maps. It's the range you have to deal with so what you do is sweep away all and start from scratch' (Richard Smith, Colgreen Comprehensive School).

The perceived need to 'start from scratch' is, therefore, as prevalent today as it was when Szpakowski (1985) criticised teachers for regarding Year 7 pupils as having no previous geography. Research in other curricula areas, even the core subjects, has found similar attitudes prevailing amongst secondary teachers (Simpson and Goulder 1998). Despite various commentators highlighting the unacceptability of this practice (Carter 1999a, Clarke 1992, Grimwade 1998, Marsden 1997, Ofsted 2001b, SCAA 1997), little progress

has been made during the lifetime of the National Curriculum (Doyle and Herrington 1998).

Other frequently cited reasons for paying scant or no attention to what had been achieved at Key Stage 2 included the large number of feeder schools – a problem faced by all subjects trying to enhance continuity and progression (Doyle and Herrington 1998, Simpson and Goulder 1998) - (one Head of Geography in Charwell commented that the number of feeder schools to his secondary school was as high as 63 in any one year), the issue of geography not being perceived as a separate subject in primary schools and the impact of literacy, numeracy and SATs on geography teaching, especially in terms of time. Chris Hall, Head of Geography, Honeyhill Secondary School, summarised these difficulties:

> ‘Because we have different feeder schools, it [the level of geographical competence] varies enormously when they come up to Year 7... Its quite easy early on to tell which ones have had a lot more geographical work than others. We do fairly regular testing in Year 7 and we’re noticing with a lot of the higher mark students have come from particular Key Stage 2 schools because they have a teacher who is prepared to spend some time doing geography work with them, whereas other schools who haven't had time, or weren’t able to cover it in the depth they’d like, the students’ marks tend to be lower. There is a huge variation of ability and how much they have learnt’ (Chris Hall, Honeyhill Secondary School).

Chris Hall’s comments clearly relate to the enthusiasm and confidence with the subject material that many primary school teachers have, and the importance of the geography coordinator in primary schools outlined in Chapter 4. Indeed Williams and Howley (1989) perceived the limited expertise of primary school teachers in geography as an obstacle to effective continuity and progression between primary and secondary schools.

Such varied experience is brought with pupils as they enter Year 7. Chris Hall concluded his assumptions on what geographical knowledge and skills Year 7 pupils will have gathered from primary school in the following way, a conclusion that Westaway (2001) acknowledges concurs with the views of other secondary school teachers:

> ‘You always assume a worst case scenario in that some of them might have learnt something, others nothing in geography at Key Stage 2’ (Chris Hall, Honeyhill Secondary School).

Implications of Teacher Attitudes to Continuity and Progression between Key Stages 2 and 3

The varied experience of primary school pupils is, at present, obscuring the geography covered at Key Stage 2, leading to perceptions that are understandable, but misguided. This variety of experience concurs with Ofsted’s own findings of variability in geography teaching at Key Stage 2 (Ofsted 1999b, 2001b). Yet as evidence cited in Chapter 4 from case study schools and Ofsted (1998a, 1999b, 1999c, 1999d, 1999e, 2000a, 2000c, 2001a) shows, the geography delivered by many primary schools is of a high standard. Grimwade (1998), in accepting this variability, postulates that this is no reason to avoid seeking greater continuity and progression between the phases. While there is a need to try to reduce the variations in geography teaching at Key Stage 2, there is also an urgent need to illustrate to secondary school teachers the good geography that is being delivered in primary schools. At present, Ofsted’s conclusions regarding geography’s failings at Key Stage 3 with respect to other subjects (Ofsted 1999a, 2001b) can be attributed, at

least in part, to this lack of recognition of the work done in primary schools. Tim Jefferies, from his observations in primary and secondary classrooms, supports this view:

> 'I think changes in primary geography have not been recognised by the secondary geography teacher. I don't think secondary teachers are moving pupils on and there is enough information to suggest that by the end of Key Stage 3, pupils in geography are not achieving standards as high as they could be, and if you compare those standards with history they certainly aren't as high as they could be' (Tim Jefferies, LEA Geography Advisor for Bridgewood).

It is this unwillingness to take account of good practice that particularly leads to secondary schools beginning from too low a base at Key Stage 3 and can be cited for progress across the Key Stage being lower than for other subjects. Ofsted (1999a) for example, list 36% of schools as achieving good or better progress in geography compared to 41% in all subjects. Not surprisingly, many primary school teachers feel that the work done at Key Stage 2 and the ability of their pupils is underestimated by secondary school teachers:

> 'We feel like a playgroup sometimes. We are made to feel like that often from the secondary schools' (Felicity Wall, Spanoak Primary School).

> 'My experience of some secondary schools is that their expectations are actually lower than ours' (Sophie Thompson, Catworth Primary School).

John Richardson takes this argument further, suggesting that secondary schools, in starting from a common base are ignoring the differentiated work that has been developed for pupils at Key Stage 2:

> ‘Now when I teach certain concepts and skills in geography my very bright children are going to go streets ahead of some of the others. Those brighter, older children need pushing on and need harder work’(John Richardson, Galsey Primary School).

In a similar way, commenting on the fact that former pupils find the first year at secondary school in geography easy, Nicola Brown supports this view:

> ‘I don’t think anyone is stretching them or maybe not expecting them to do certain things’ (Nicola Brown, Bromswold Junior School).

This charge of insufficient challenge is supported by other evidence. From lesson observation, Tim Jefferies feels that the work of primary schools is being ignored:

> ‘What I’ve seen in lessons would suggest that children are not being as challenged as much as they could be. The good geography, and there is a lot of good geography in primary schools, is not being picked up at Key Stage 3’ (Tim Jefferies, LEA Geography Advisor for Bridgewood).

Such comments are supported by Ofsted evidence which reports on undemanding work (1998a, 1999b, 2000b), and challenges being inappropriate to the level of development of certain pupils (1999g). The following comment encapsulates this problem:

> ‘Pupils in Year 9 were being taught about the water cycle as part of a study on weather and climate in a way which was suitable for Year 6’ (Ofsted 1999a p3).

In concurring with these findings, Iwaskow (2001) questions if the variability of the primary school experience is no more than an excuse to avoid more detailed planning. While accepting that this is contentious, Iwaskow (2001) believes that continuity and progression would be enhanced if secondary schools were more prepared, as Richard

Hawkin's comment above suggests, to differentiate by task at Key Stage 3. Davidson et al (1996) provided some insight as to how this might be achieved in their 'Differentiation Project'. Running over three years, initially covering mathematics, English and humanities teaching, teachers at a rural comprehensive school introduced various differentiated exercises to Year 7 pupils in order to facilitate progression in learning as they moved from primary to secondary school. Davidson et al (1996) conclude that:

> 'Though the structure and organisation of secondary teaching make it impossible to recreate the flexibility and intimate knowledge of each child's learning that is possible at primary level, nevertheless our project has demonstrated that there is very considerable scope within secondary teaching for enhancing individual learning opportunities' (Davidson et al 1996 p38).

While not being prepared to accept the 'starting from scratch' assumption made by most secondary school teachers, Matthew Steele does acknowledge that circumstances prevalent within primary education at present encourage rather than discourage such beliefs:

> 'Clearly the lack of curriculum time for non-core subjects in primary schools hasn't helped the assumption. In a sense they might be right, some children have had very little geographical experience in the last year because the school has been hammering them in preparation for SATs...There is also an issue with the flexibility of the [Geography National Curriculum] Order because unlike history where you can assume that Year 7 children have done something on the Egyptians, something on the Tudors, in recognisable units, in geography they could have packaged the programme of study any which way you like' (Matthew Steele, LEA Geography Advisor for Charwell).

The question of interpretation, and the variety of interpretations that can be made of the Geography National Curriculum (Carter 1999a), is once again a significant issue - in this case providing an obstacle to continuity and progression between Key Stages 2 and 3.

Not only are the variety of possible interpretations significant, but also the person providing the interpretation (Roberts 1995). For example, a specialist primary school geography teacher is far more likely to provide a fuller and more distinct interpretation than a non-specialist, who is more likely to adopt or more closely follow the QCA schemes of work for Key Stage 2. Indeed Alcock (2001) suggests that many non-specialist primary school teachers have extreme difficulty in interpreting the geography order which questions to some extent the perceived benefits outlined by some commentators of the flexibility the new order offers (Rawling 2000a, 2000c, Westaway 2001). Despite the variety of interpretation possible, Matthew Steele still feels that 'it is much easier to work a spiral curriculum within a school than to manage it across schools' as the Geography National Curriculum provides clear strands to follow. Thus, from a LEA point of view, establishing strong schemes of work within Key Stages remains the priority. Even so, there should still be a requirement to begin planning the Key Stage 3 curriculum with a knowledge of what should have been covered at Key Stage 2 (Grimwade 1995) which appears not to be happening:

> 'I think a major part of the problem is that Key Stage 3 teachers are not aware of what the experiences are at Key Stage 2, they're not aware of the programme of study despite emphasizing that their curriculum planning should begin by understanding and having a knowledge of what's in the Key Stage 2 programme of study' (Tim Jefferies LEA Geography Advisor for Bridgewood).

The return to the statutory nature of geography at Key Stage 2 would appear, as yet, to have done little to improve this situation. Secondary school geography teachers still feel somewhat reluctant to trust their primary colleagues to have covered the relevant

material. Indeed even of the 15 (25%) secondary schools that are prepared to assume a previous knowledge, understanding and skills, this is only in a basic format, such as elementary map skills, atlas locations and coverage of the home region. There needs to be more than just a realisation that the National Curriculum is statutory and that all schools will be following it.

While undoubtedly, the resumption of the need to fulfil the National Curriculum in geography will have a positive influence in primary schools, especially where it has been reduced in recent years, there are numerous factors that must be considered and dealt with before secondary school teachers are more ready to accept that because it is statutory, the geography curriculum at Key Stage 2 will be covered. Even in core subjects where the National Curriculum has been statutory, similar assumptions and low expectations abound (Ponchaud 1997, Gunnell 1999). A reduction in the variability of the delivery of Key Stage 2 geography should improve the situation. Such obstacles are not new (Steed and Sudworth 1985, Szpakowski 1985). As Chapter 4 indicated, to achieve such a reduction requires greater attention to be paid to the role of the geography coordinators and improving their expertise and providing time, not only to teach the subject, but also to provide appropriate support for the coordinators themselves (Ofsted 2000a, 2001c).

Successful Planning for Continuity and Progression at Key Stage 3

Is any attempt being made to achieve continuity and progression between Key Stage 2 and 3 by secondary schools in their curriculum design and teaching of geography at Key Stage 3? Having made rather negative assumptions, Honeyhill is, however, unique among schools surveyed in that some attempt is made to build in continuity and progression from Key Stage 2 to Key Stage 3:

> 'What I tend to do for the first few lessons in Year 7 is go over some of the Key Stage 2 work with them just to get them back into the mode of education, to break down that barrier between the two key stages and get their confidence up...We try and use a topic based approach, which they are used to, and we make sure that at the beginning of each topic we try and reinforce things. We try and find out what they've already found out in Key Stage 2. For example, with the map work we find out how many have done co-ordinates and maps, which a lot of them have. When we look at Brazil in Year 7, we talk about rich and poor countries and found out what they've learnt at Key Stage 2 there. So we recap a little bit of Key Stage 2 in the first couple of lessons and then go straight to Key Stage 3' (Chris Hall, Honeyhill Secondary School).

In isolation, this example does illustrate good practice that may be repeated in other schools. The concept of trying to build upon a foundation of knowledge and skills that already exists is concurrent with the views of Adey (1997), Daugherty (1996), Newby (1995), SCAA (1997) and Wiegand (1987). It is, however, an isolated example and once again poses questions regarding the way in which pupils' learning is consolidated and advanced other than repetition of content.

With so little attention being paid to what has been covered in Key Stage 2, it would be expected that overlap of topics covered in the geography curriculum would occur. This includes not only transgression into Key Stage 3 geography by primary schools, but also

secondary schools repeating topics already covered in Key Stage 2. Such practices are likely to result in a breakdown of continuity and progression.

Key Stage 2 Overlapping With Key Stage 3 in Primary Schools

It is important to assess, at the outset, the degree to which primary schools are teaching Key Stage 3 themes as part of their geography curriculum. The design of the questionnaire survey facilitated such an assessment. Table 5.6 summarises the extent of this practice.

It is apposite to consider in more detail some of the trends in Table 5.6, in particular when such themes are introduced in primary schools. Analysis of transgression into Key Stage 3 is once again undertaken through consideration of the entitlements and themes of the Programme of Study.

Table 5.6 Key Stage 3 Themes Taught by Primary Schools[1]

Skill/Place/Theme	Percentage of Primary Schools Teaching Theme[2]
Be able to use 1:50,000 OS map	83
Be able to use 1:25,000 OS map	85
Understand how to use and give six grid references	69
How to draw an annotated sketch map from an OS map	39
How to draw cross-sections from OS Maps	21
Use graphs to present geographical information	80
Locate places in an atlas	99
Study of a developed country outside the UK	53
Study of a developing country	45
The water cycle	93
The drainage basin system	59
Causes and effects of river floods	77
How weather and climate differ	90
Reason for location and growth of settlements	83
How types and variety of different types of goods vary In settlements of different sizes	75
Different types and patterns of urban land use	73
Unintended effects of managing the environment	57
Why areas are of great scenic attraction	48
Conflicts arising from managing the environment	63
Provision of fresh water supply	62
Causes effects and prevention of water pollution	70
Aspects of development	58
Population studies	30
Economic activity	42
Coastal processes	24
Ecosystems	33
Tectonic processes	28

[1]Themes derived from the Geography National Curriculum of 1999
[2]Percentages calculated on a sample of 130 primary schools

Skills

A surprisingly large number of primary schools introduced skills designated for Key Stage 3. Of greatest significance is the use of Ordnance Survey maps, as Table 5.6 shows. The introduction of 1:50,000 OS maps was favoured either in Year 6 only (30 (23%) schools), or Years 5 and 6 (34 (26%) schools), with similar figures for 1:25,000 OS maps. Locating places in an atlas (a Key Stage 3 skill) is clearly seen as a natural progression from using contents and index pages in an atlas, as only 1 school did not cover this and most (99 (76%) schools) integrated it into Years 3,4,5 and 6. Years 5 and 6 (26 (20%) schools) or Year 6 only (57 (44%) schools) were again favoured for the introduction of six figure grid references. Individual LEAs tended to follow similar patterns. One notable exception being Greendale with regard to use of six figure grid references, where only 4 (3%) schools did not introduce it.

Significantly, primary schools are actively teaching Key Stage 3 skills as part of their course. These statistics once again go some way to refute perceptions of the geography taught in primary schools that are held by secondary school teachers. Taking maps as an example, Tom Evans described Year 7 map work at Crowhill Secondary school in the following way:

> ‘We give an actual OS map out. We are not doing a simple thing like they do in primary school, we get proper OS maps out and they go much further’ (Tom Evans, Crowhill Comprehensive School).

This misconception regarding map work would appear to need addressing. Before applying broad generalizations to the level of skill coverage in primary schools, however, it should be noted that the survey results also indicate a number of Key Stage 3 skills where there are substantial numbers of pupils who have not been taught such advanced techniques. This further compounds the problem of pupils from different primary schools having had different experiences of geography on entering their secondary schools.

Places

Places specified in the Key Stage 3 programme of study received much less attention. Where this practice occurred it is possible that in many instances this was seen as an extension of locality studies previously undertaken. Given the most advanced nature of a whole country study, it was not surprising to find most of these studies taking place in Years 5 and 6. The large number of schools studying both developed and developing countries (a Key Stage 3 specification) does give rise to concern. The likelihood of a pupil being taught about the same country at Key Stage 2 and 3 is not insignificant, and unless liaison ensures that the approach and aspects of coverage of that country is very different in the secondary school, then the potential for disinterest is great.

Physical Geography Themes

With regard to the specified physical geography themes in the National Curriculum, coverage of river studies by those schools surveyed is not only comprehensive, but also

appears to integrate the majority of the Key Stage 3 themes into the primary programme of study. It is, therefore, somewhat surprising that schools favoured some Key Stage 3 themes more than the Key Stage 2 theme of landforms associated with river channels. Complementing the experience of skills and places, the Key Stage 3 river themes received the greatest amount of attention in these Years 5 and 6. In comparing individual LEAs, it was noticeable that schools in Greendale and Oakleigh were far less likely to transgress into Key Stage 3 rivers themes.

Physical geography themes that are entirely the preserve of the Key Stage 3 programme of study received little attention from schools. While the number of schools opting to extend their curriculum into these areas was small, there nevertheless remains a minority of pupils who will have knowledge and understanding of Key Stage 3 themes on entering Year 7 as a direct result of their geographical experience at primary school.

The disinclination to teach river landforms at Key Stage 2 by some schools in preference to Key Stage 3 themes is also manifest in studies of weather. How weather and climate differ (a Key Stage 3 theme) once again received more attention than seasonal weather patterns (a Key Stage 2 theme). Many schools also studied other aspects of weather, notably climates in different parts of the world and extremes of weather.

The transgression into Key Stage 3 physical geography themes, not represented at Key Stage 2, raises similar concerns as that of skills, in that pupils could be presented with a secondary curriculum that is repeating their primary experience. The use of resources and

teaching schemes already available (highlighted as a factor in determining the primary curriculum), along with the opportunity to combine with other subject areas of the National Curriculum, provides some insight into reasons for this. Certain aspects of physical geography (such as elements of rivers and weather studies) combine well with subjects such as science (Carter 1998). In addition, the more specialist nature of river landforms or seasonal weather patterns might well deter non-specialist geography primary teachers from covering these themes, as they feel ill equipped to deliver the subject material through lack of resources or lack of expertise.

Human Geography Themes

Following a similar pattern to the physical geography themes, many primary schools surveyed were not afraid to introduce human geography themes reserved for Key Stage 3 at Key Stage 2. The number of schools adopting this approach, however, significantly increased. The high number of schools teaching aspects of development is attributable to over half of the Charwell LEA primary schools choosing to teach this theme. Coverage once again concentrated on singular years, development issues being taught primarily in Years 4, 5 or 6 and population generally being concentrated in Year 6. A small number of schools attempted to cover the development themes in Years 5 and 6, and across the whole key stage. In attempting to explain the high percentage of schools teaching Key Stage 3 development issues, especially within the Charwell LEA, Matthew Steele cited the difficulty of separating aspects of development that are in Key Stage 3 from issues raised in Key Stage 2. In addition, the interpretation of what are development issues is

also considered to be different depending upon whether it is considered from a primary or secondary perspective:

> 'Its to do with the notion of distant places and some of the most interesting work is being done on those distant places which, of course, are in developing countries. I think it would be very difficult to do interesting work on St. Lucia, for example, without tackling development issues, but they wouldn't always classify it as development issues – they wouldn't necessarily look at it quite the same way as secondary geographers' (Matthew Steele, LEA Geography Advisor for Charwell).

Subject areas that transcended both Key Stage 2 and Key Stage 3 saw much coverage of the latter's programmes of study. Year 5 or Year 6 were the most popular choices for covering these topics, for example 29 (23%) schools considered unintended effects of managing the environment in Year 6, closely followed by Years 5 and 6 combined, with 25 (19%) schools studying conflicts arising from managing the environment in both of these years. Greendale primary schools again proved to be the most reluctant to teach beyond Key Stage 2 (52% (68) of schools did not explore why areas are of great scenic attraction or the provision of fresh water supply), with similar figures being recorded for Charwell and Oakleigh schools. The preference for where the topics were taught in the key stage did not vary markedly from the trend already noted for the region as a whole.

Teaching of material reserved for Key Stage 3 was widespread, supporting similar findings in other subjects (Balbir 1999, Peacock 1999, Ponchaud 1997). Practice from the case study schools indicates that this is most likely to occur as extension material for more able groups or pupils building upon the Key Stage 2 foundation. Primary school

teachers, especially where their subject knowledge is secure, appear to enjoy developing geographical concepts with their classes. Where topics not usually introduced at Key Stage 2 are taught, again the subject expertise of the geography coordinator appears important, but also the recognition of being able to link with other curricular areas. Fieldwork also influences the curriculum. Two case study schools undertake residential fieldtrips to coastal areas, for example, and thus it would seem appropriate that consideration of coastal features forms part of the fieldtrip's (and therefore geography's) teaching.

It is, therefore, likely that pupils will have explored and experienced numerous aspects of the Key Stage 3 programme of study prior to their arrival at secondary school. Given the advanced nature of Key Stage 3 topics, it is not surprising to find little provision for continuity and progression within the primary school curriculum for such topics, as most schools restrict study to a single year group. Considering the National Curriculum as a whole, however, thought has been given to the introduction of these topics. Currently Key Stage 3 topics are introduced predominantly in Year 6 by primary schools. Thus, for a substantial number of pupils, their most recent geographical experiences on leaving Year 6 are likely to be similar, if not the same, as their first experiences in geography in Year 7 (and in some cases Year 8 and 9 as well). In itself, this may not be inappropriate. Bennetts (1995a) and Marsden (1995) both stress the importance of revisiting material previously taught. The challenge is to avoid repetition, a challenge that has yet to be met (Daugherty 1996), and prevent the reversal of pupil performance evident in many subjects on entering Year 7 (Galton et al 1999, Hargreaves and Galton 1999, QCA

1999a). Indeed, Iwaskow (2001) suggests that work undertaken at Key Stage 2 is often of a higher quality than at Key Stage 3.

Despite this widespread practice of transgression into Key Stage 3, there is still a great amount of variability both within individual LEAs surveyed and the region as a whole. There is some suggestion that the content of the National Curriculum may be responsible for such an incursion (as with development issues, for example), and indeed there is a question of whether the overlap occurring is because of a decision made to teach material at a Key Stage 3 level or whether primary teachers are using Key Stage 3 material, but teaching and interpreting such material at a level appropriate for Key Stage 2 pupils. Roberts (1995) observes that the same material within the Geography National Curriculum can be treated in very different ways. The questionnaire survey cannot elucidate whether material being delivered from the Key Stage 3 curriculum is being taught in a manner and in the depth that would be expected at Key Stage 3. Teaching certain Key Stage 3 topics may just be adjuncts to a Key Stage 2 theme. In some instances, the Key Stage 3 topic may be substituted for a Key Stage 2 theme. Iwaskow (2001) contends that where, for example, a country study is undertaken, primary schools often neglect the locality study within that country, even though this is the Key Stage 2 theme.

Nevertheless, the corollary of such practice is to create uncertainty about what aspects of the National Curriculum have been covered on arrival at secondary school in Year 7, unless cross-phase liaison has taken place. This inevitably results in the repetition of

work at Key Stage 3. Yet many primary school teachers do not appear to consider this disadvantageous to their pupils. A key belief underlying this attitude is that primary school pupils will not remember what has been taught before. Nicola Brown illustrated this by reference to science teaching within Key Stage 2:

> 'We find with almost everything, particularly with science, when you try and cover everything in Years 3 and 4 we try to repeat everything over the period of four years so that when they get to SATs they've gone through it really well. They do need repetition because they don't remember all of it' (Nicola Brown, Bromswold Junior School).

Primary school teachers also express confidence in the secondary school teachers to the extent that repetition of topics will be done in a positive, more detailed, way building upon previous experience:

> 'I imagine they need to revisit the skills. The topics, I imagine there's an overlap, but obviously with more detail they'll get to know a lot more in much greater depth, so I can see there is going to be an overlap but I don't see that as detrimental rather a positive thing, a building on...it's doing them no harm to revisit and remember' (Louise Matthews, Woodleys Junior School).

There is a need to question, however, what more 'depth' means in this context for if it is considered to be providing more detailed information without accompanying the information with more challenging activities, then progression is not being achieved (Bennetts 2001). Thus as primary schools appear to be not unduly concerned regarding their lack of transgression into Key Stage 3 or over the issue of repeating work, it becomes important to analyse at what level secondary schools actually begin Key Stage 3 from and how much their curriculum overlaps with Key Stage 2 material.

Key Stage 3 Overlapping With Key Stage 2

In summary, the extent to which secondary schools surveyed overlap with Key Stage 2 is illustrated in Table 5.7.

Table 5.7 Secondary School Coverage of Key Stage 2 Geography[1]

Skill/Place/Theme	Percentage of Secondary Schools Teaching Topic[2]
Make plans and maps at a variety of scales, using symbols and keys	97
Understand how to use and give four figure grid references	100
Be able to measure direction and distance	98
Using a contents and index page of an atlas	100
Study local area of the school	92
Study of a locality elsewhere in UK	82
Study of locality in a developing country	100
How rivers erode, transport and deposit material	90
Landforms associated with river channels	90
How site conditions influence weather patterns	95
Seasonal weather patterns	89
Settlements vary in size	100
Settlements have different functions	100
Conflicts over use of land in settlements	93
How people affect the environment	97
How people manage the environment	98

[1]Themes derived from the Geography National Curriculum of 1999
[2]Percentages calculated on a sample of 61 secondary schools

The high percentages indicate remarkable similarity between schools in their approach to designing the Key Stage 3 curriculum. Most schools appear to begin with Key Stage 2 themes which provides some possible reasons for Ofsted criticising secondary schools for

beginning at too low a base (Ofsted 1999a, Iwaskow 2001). It should be stated, however, that interpretation of thematic coverage will vary between respondents, and the way in which material is covered, even if drawn from Key Stage 2, may vary substantially from the nature of coverage in primary schools and from the way it is delivered in other secondary schools.

The key headings used in examining the degree of Key Stage 3 overlap by primary schools can once again be utilised here to assess where and when overlap of topics and skills occurs throughout the Key Stage 3 course.

Skills

Almost without exception, the principal areas of skills belonging to Key Stage 2 were taught by secondary school teachers in Year 7. All schools used 1:50,000 OS maps and all but 2 (3%) schools did not use 1:25,000 OS maps in Year 7. Given the high usage of these maps at Key Stage 2, anyway, it is clear that Year 7 pupils would be revisiting skills that they had experienced at Key Stage 2. The exceptional high number of schools adopting a map skills approach in Year 7 would seem to indicate that the first experience of secondary school geography for the majority of pupils is a skills based (especially map skills) course. While it is possible to interpret this as continuity of experience with a general progression across Key Stages (Iwaskow 2001), there remain a number of questions as to the appropriateness of such a course (given that the Geography National Curriculum has previously stated that themes, areas and skills should be integrated into

lessons and not taught separately) and indeed whether the skills are being built upon or just repeated. As Matthew Steele observes:

> 'There is a difference between repeating work and building on prior learning. Building on prior learning would assume that the teachers have started with what they've done and moved the children forwards rather than just repeated how to do four figure grid references, just to take a simple example' (Matthew Steele, LEA Geography Advisor for Charwell).

In supporting this statement, when commenting upon repetition of skills work in secondary schools, Felicity Wall commented:

> 'Skills have got to be repeated. It has got to be a spiral curriculum, but should be reinforced in a different way up the school' (Felicity Wall, Spanoak Primary School).

Places

In a trend similar to skills, the study of the local area of the school, a theme covered by all primary school respondents at some point during Key Stage 2, was revisited by nearly all secondary schools and in most cases, 43 (71%) schools, in Year 7. While the local area of a secondary school could well be different from that of a primary school, overlap is likely to occur and the progression of scale implied by beginning at the local area is similar to that running through Key Stage 2 and not following on from the wider scale reached by the end of the Key Stage. Schools such as Hawkswell School and Community College, adopt this approach unashamedly in order for the pupils to begin with something familiar, in itself a principle of progression (Marsden 1995). The coverage of other Key Stage 2 places also received as much attention.

Physical Geography Themes

In teaching about rivers, most secondary schools felt the need to revisit the Key Stage 2 themes, although with 29 (22%) primary schools not teaching river landforms, some justification to this practice could be derived. In teaching these themes it is interesting to note that the majority of schools used Year 8 in isolation, 33 (54%) and 34 (56%) schools teaching river processes and river landforms respectively in this year only. Comparatively, the number of schools opting not to introduce the newer material of coastal landforms was great. Only 31 (52%) schools opted to introduce coastal studies at all. Thus, in the sense that the Key Stage 3 physical geography curriculum should provide continuity and progression from the Key Stage 2 curriculum, secondary schools have provided an identifiable link, although once more issues of building upon rather than just repeating of work already covered at Key Stage 2 are apparent.

In the teaching of weather, a similar pattern is discernible. The Key Stage 2 themes of site conditions influencing weather patterns and seasonal weather patterns receive as much attention as the Key Stage 3 theme of differences between weather and climate. A large number of schools, 29 (48%), considered site conditions and weather only in Year 7, which given that most primary schools covered this topic in Years 3 or 4 probably represents an appropriate time to revisit this theme.

Human Geography Themes

In replicating patterns already observed, all secondary schools not only taught the Key Stage 2 settlement themes, but also delivered them in Year 7. 38 (62%) schools considered the themes of how and why settlements vary in size and have different functions in Year 7 only. Given that primary schools teach these (and a number of Key Stage 3 themes) throughout Key Stage 2 - in any one year, a minimum of 54 (42%) primary schools were teaching the Key Stage 2 settlement themes - this emphasis on revisiting the Key Stage 2 programme of study would appear to lack originality and variety for many Year 7 pupils. Indeed pupils at Hawkswell Comprehensive School commented that similar material was being repeated in the study of settlements which evoked little enthusiasm from the pupils concerned.

Key Stage 2 environmental themes were also covered by nearly all secondary schools, although these were distributed throughout the Key Stage 3 curriculum. The themes themselves (how people affect and how people manage the environment) are implicit in many of the Key Stage 3 environmental themes so it is of little surprise that these receive such widespread coverage.

Evaluation of Key Stage 2 and 3 Overlap in Geography

In general, the questionnaire survey indicates that the degree of overlap with Key Stage 2 material is substantial. The overriding question arising from these findings, however, is does this revisiting of material represent well planned continuity with progression? Indeed, are pupils experiencing previously taught material in a way that provides variety and builds upon existing knowledge? Evidence would tend to indicate that this is not the case. For example, Tim Jefferies described two recent incidents during classroom observation of repetition of Key Stage 2 material as well as confirming the practice as being widespread in numerous schools:

> 'Drawing on my monitoring visits to schools and classroom observations it is not unusual at Key Stage 3 to see youngsters having experiences that they've had in Key Stage 2 and the Key Stage 3 teacher being quite oblivious to that. For example, two weeks ago I was in a school in Dudley and Year 7 were doing work on the local area and the main part of the lesson was spent with the pupils being on the roadside doing a traffic survey. Now there was a reasonable purpose underpinning that, and I'm not being critical of that, but it was quite obvious to me that those pupils had had that experience before. That's not to invalidate the experience but the way the teaching was targeted was not developing their skills or their knowledge – it was going over what I would regard as being pretty basic and the children were already adept at it. So it was quite interesting to hear from the teacher when I asked her about the reason for doing it, that her number one reason was that pupils had not had this experience before.
>
> Another example to illustrate this is that it is not unusual in Year 7 to witness children doing work on choosing settlement sites – the advantages and disadvantages of three or four settlement sites – to see that that work is very similar to what they might be doing in their studies at Key Stage 2. There's no progression, they're not building on their skills, knowledge and understanding, and one question I usually ask Year 7 pupils, irrespective of the lesson I'm in, is have they done this work before and there is a high 'yes' response rate to that, a very high 'yes' response rate' (Tim Jefferies, LEA Geography Advisor for Bridgewood).

Thus secondary schools, with basic assumptions, are beginning from a level at Key Stage 2 that replicates work undertaken at primary school. Secondary school teachers also recognise this fact:

> 'I think there's a bit of repetition of the basic skills for some of the kids who have had a good taste of geography at Key Stage 2. I recognise that fact and maybe some of the components of Key Stage 3, like work on weather and climates, we've thinned out because kids say they've done it before. I know for example, with rainfall, if we decide to do an exercise on rainfall and say, right let's make a rain gauge, they say "Oh we've done this before in primary school"'(Tom Evans, Crowhill Comprehensive School).

In determining a starting base for the geography curriculum at Crowhill, Tom Evans believes the starting point should be level 3 of the National Curriculum. This contrasts with some of the work being produced by primary schools that would be accredited level 5 or higher. Yet in justifying this repetition, Tom Evans cites an Ofsted inspection (Ofsted 1995b) that did not criticise the teaching of basic skills, rather the quantity of material covered on the lower level material for some more able pupils, and as such feels compelled to continue with such an approach.

Despite the observations of Tim Jefferies, there is some indication that schools are taking account of what has been achieved prior to entry into Year 7, although frequently this is only in the area of skill development. One such example is Hawkswell Comprehensive School:

> 'Certainly there's been a huge improvement in their map reading skills. I don't think there are any feeder schools now who haven't done map reading and that has certainly changed in the last five or six years...We tend to find now that all of the feeder schools have done some basic map work and we find we don't have to bother with say the 8

> points of the compass, the four figure grid references, they've already done those, so we actually start at a slightly higher level than we used to do. The problem is that the topics they've often done in primary school, the colourful and interesting ones that they've got the videos of, we might not actually do them until year 8 or 9 so I think by the time we do them they've forgotten what they have done in primary school or we are doing it at a higher level anyway' (Debbie Dixon, Hawkswell Comprehensive School).

The concept of a 'higher level' is of interest here. At Hawkswell this is taken to represent more detailed information, more in-depth explanation of geographical concepts, and with skills, more complex problems to solve. Such practice is consistent with the principles of progression (Adey 1997, Bennetts 1981, 1986, 1995b, DES 1986, Newby 1995, Marsden 1995, Sorsby 1995). Yet without definite knowledge of what has been taught at primary school the perception that this is a 'higher level' remains that of the secondary school teacher and certainly cannot provide any guarantees that the learning experiences of primary school pupils are not being repeated.

There are many secondary school respondents to the questionnaire survey whose assessment of Year 7 pupils confirms the need to start from a low base. Many primary schools may well indeed cover the material specified in Key Stage 2, but the depth and thoroughness of that teaching has already been seen to vary within and between the LEAs surveyed. As such, Year 7 pupils frequently have a familiarity of skills and ideas but in reality need the foundations relaying in order to progress.

Jenny Moore, in making such observations, feels that overlap is a necessity to ensure a complete grounding in the subject, but observes that the repetition this brings need not be a negative influence:

> ‘Overall we’re positive because that’s how we sell it to them – they’ve done it before but we’re going to take it further and that’s there’s a lot more to learn and it’s a bonus that you’ve got some information already...They seem to be doing it in other subjects as well and there’s almost an acceptance that this is what will happen. Not really negatively, more of a kind of indifference’ (Jenny Moore, Tillbrook Secondary School).

It would appear, therefore, that primary school perceptions of repetition of work being beneficial as it will be taken further are borne out in practice. Indeed, some secondary school teachers even talk of their pupils enjoying geography as they find it easy, having covered material with which they are familiar. Chris Hall would be one such teacher. The Honeyhill Year 7 geography curriculum begins with basic map skills as this is perceived as providing a confidence boost to Year 7 pupils as the majority will have done this at Key Stage 2 and thus ease the transition into the more advanced work of Key Stage 3. Felicity Wall of Spanoak Primary School, in commenting on such an approach describes it as ‘getting the children settled and confident’. Such an approach is not, however, perceived as producing a Key Stage 3 dip in geography similar to those identified in numeracy, literacy and science:

> ‘I don’t think there is a dip in geography. What we could be accused of for the first few lessons in each topic is actually setting low targets and low expectations, but that is deliberate because we want students to access the topic and see what they learnt in Key Stage 2 and build it up. If we just go to Key Stage 3 in the first lesson, I would say a good quarter to a third of students in that class are going to be lost straight away’ (Chris Hall, Honeyhill Secondary School).

There are many commentators, however, who believe that such an approach neglects the primary school experience, for example Tim Jefferies’s observations (above) Butt (2001)

and Wood (2001). Indeed Wood (2001) postulates that a Key Stage 3 dip in geography is evident, suggesting that the flexibility of the geography order accentuates a performance dip at Key Stage 3. In addition, the Geography National Curriculum in its description of level statements assigned to each Key Stage indicates that Key Stage 3 will start at a base that overlaps with Key Stage 2. The same is also true with Key Stage 2 overlapping with Key Stage 3. For example, in providing an exemplar of how the levels of the Geography National Curriculum could be applied to the development of map skills at Key Stage 2, Foley and Janikoun (1996) give examples of activities up to level 5. Indeed, level descriptions have often been perceived as a hindrance to continuity and progression and good curriculum planning (Carter 1994, Graves et al 1990b, Sorsby 1995), even though in geography they are written in such a way as to suggest that continuity and progression is not only desirable and accessible, but an absolute prerequisite of learning the subject. It is not necessarily assumed that the same work will be repeated although implicit in the design of a spiral curriculum is the notion that themes, concepts and skills will be revisited. For successful continuity and progression to be achieved between the primary and secondary phase in geography, this revisiting of material needs to be undertaken in a manner that builds upon and challenges pupils in a different way to that of their primary experience (Newby 1995).

Of crucial importance here is the knowledge that secondary school teachers possess of what is actually taught in primary schools. Even though secondary school teachers should, with the National Curriculum, possess improved understanding of what has been taught at primary school (Binns 1996), the assumptions, attitudes and expectations

expressed by Key Stage 3 teachers suggest that the Geography National Curriculum is perceived as a separate document beginning with Key Stage 3, thus ignoring the advice of Marsden (1997) to recognise the level at which primary pupils are at on entry to Year 7.

The National Curriculum was designed to enhance continuity and progression across the primary/secondary divide (Bennetts 1995b, Binns 1996, Blatch 1993, Daugherty 1989, 1996, Clarke 1992, Doyle and Herrington 1998, Herrington 1994, Rawling 1995, Williams 1997), yet very little progress has been made in this area. In short, secondary school teachers should be aware of what primary school teachers are doing. Undoubtedly, there have been numerous mitigating factors that have contributed to this failure, not least the design of the National Curriculum itself and the myriad interpretations that are possible of its subject content (Roberts 1995, Carter 1999a). With the opportunity for even broader interpretations in the revised curriculum introduced in September 2000, which Rawling (2000a) perceives as a positive influence on curriculum development, trying to arrive at common content is made more difficult. As Tim Jefferies comments:

> ‘Wasn’t one of the reasons underpinning the National Curriculum to secure curriculum continuity through the phases? It isn’t happening’ (Tim Jefferies, LEA Geography Advisor for Bridgewood).

Teachers’ interpretations of continuity and progression within the National Curriculum are often used as an excuse to repeat work undertaken at Key Stage 2:

> ‘If you think back to the early days of the National Curriculum, one of the corner stones of the National Curriculum in geography was re-visiting which was basically a cop out saying well, you know, it doesn’t matter if you repeat it when they’ve done it before’ (Richard Smith, Colgreen Comprehensive School).

The questionnaire survey revealed similar topics being covered at the end of Key Stage 2 and the beginning of Key Stage 3. In every case study secondary school, Year 7 began with a skills based course, frequently continuing with local area and settlement studies. Appendix 5 contains Hawkswell Comprehensive School's Year 7 first term scheme of work, which is a typical example of this. The survey data indicates a similar pattern across the four LEAs studied. This approach at the beginning of Year 7 undoubtedly means that similar skills, knowledge and geographical concepts are being taught. There is, however, some indication that secondary schools are trying to present this in a way to ease the transition between the two Key Stages, increase pupils’ confidence with exposure to the familiar and then build upon the foundation by progressing to more advanced Key Stage 3 work. As such, primary teachers would appear not to consider this approach as detrimental to pupils with a good geographical grounding at Key Stage 2. Such a contention appears to be supported by the pupils themselves.

Pupils Experiences of Geography at Key Stages 2 and 3.

Interviews with pupils tended to refute the idea of a Key Stage 3 dip in geography. In each case study school where pupils were interviewed, all pupils commented on the depth and detail of study being undertaken. While topics were being revisited that had been covered in primary school, very few pupils perceived this as disadvantageous, as the

learning experience at secondary school was involving far more detailed learning. The reduction of time spent on a topic also impacted on pupils' perceptions of the detail, with Year 7 work moving more quickly than their primary school experience. This was true not only for thematic studies, but also for skills work as well. Pupils also considered it an advantage to know something about a topic before it was taught at Key Stage 3, concurring with views expressed by primary school teachers interviewed. Thus, without necessarily having actively sought to, the Key Stage 3 curriculum would appear to be adhering to the principles of a spiral curriculum and, by implication, continuity and progression. One exception to this came from a pupil at Hawkswell Comprehensive School who in making the following comment highlighted, albeit unwittingly, the lack of progression within Key Stage 3:

> 'Where you repeat a topic you've done in primary school it can get a bit boring after a while. It's great when you're doing a new subject. I think it should be mixed about a bit – after a couple of weeks go onto a new topic and then after a couple of weeks go back to the old topic' (Pupil, Hawkswell Comprehensive School).

There was also some dissatisfaction expressed with the nature of teaching at Key Stage 3. At Tillbrook Technology College, for example, pupils recounted work undertaken at primary school on the rainforest where a whole classroom was decorated to simulate a rainforest environment. At Honeyhill Secondary School, pupils had been taught through drama workshops on geographical themes. In comparison, the delivery of the subject in Year 7 was considered somewhat lacking in challenge. Indeed, pupils, in responding to the question of what they were most looking forward to at secondary school, used the word 'challenge' in expressing the hope that they would undertake work of a more

demanding nature. Criticisms such as ‘too many worksheets’, ‘copying off the board’, and ‘too many notes’ were common from pupils interviewed in all three case study schools. Once again this raises questions as to whether detailed information is being seen as progression in itself, with little or no assessment taking place of individual children’s learning so that these new tasks enable progression to occur.

Implications of Discontinuity of Pupils’ Experiences on Transfer to Secondary School

There remains, however, a discontinuity of experience for many Year 7 pupils. Whereas SATs tests in English, mathematics and science allow secondary schools to stream or set and differentiate at an early stage of Key Stage 3, there is little in the way of opportunity for geography teachers to segregate according to the geographical experience of primary school pupils should they wish to, (although where this is attempted, by way of a geography baseline assessment, Matthew Steele cautions that this counteracts the principles of positive achievement, as you are actually finding out what pupils do not know). The varied experiences that exist across primary schools within the same LEAs studied, is often brought together within the same class at Year 7. The challenge that this presents is invariably met with designing a Year 7 curriculum that revisits and repeats work undertaken at Key Stage 2 to ensure all pupils have the necessary grounding before progressing further into Key Stage 3. While this is most often observed through the repetition of skills (especially map skills), human and physical geography themes also receive much repetition. In the case of the former, Westaway (2001) observes that

secondary school heads of department begin Year 7 with a freestanding map work skills unit as they cannot be sure about the skills pupils have already acquired. Matthew Steele questions why map skills should not be developed through investigations into new areas of knowledge and understanding, so you are developing or revisiting their map skills but in a different context. In the case of the latter, the popular perception appears to be that pupils will have forgotten their primary school experiences or at the most have a fragmented memory of such teaching.

Undoubtedly, the varied teaching of geography in primary schools accounts for the need for such a policy, and further work is needed to improve the overall teaching of geography at this level. There is, however, a real concern over the assumptions readily made by secondary school teachers regarding the geography covered at Key Stage 2. There is an urgent need to recognise that primary schools are fulfilling the Key Stage 2 curriculum and that more attention needs to be paid to what happens within this key stage. As Tim Jefferies comments:

> 'I think the quality of pupils' experiences in geography at Key Stage 2 is far better than it has ever been before. Pupils do have a good idea of what geography is about. Their knowledge, their understanding, their skills in geography are much more secure than they were before, their use of geographical terminology is much more secure than before and I think that at Key Stage 3, the evaluation of pupils' primary experience by teachers is a denial to a certain extent. I think secondary school teachers have got to realise that by the time these pupils come to them in Year 7, they've had six or seven years of geographical experiences and there's only three more years to go. The bulk of the statutory geography experience has been in the primary phase – two thirds of it is there. For some pupils it is going to finish at the end of Year 9, and therefore much more must be made of their experiences at Key Stage 1 and 2. I really do feel that pupils' geographical experiences would be far better at Key Stage 3 if more consideration was given to Key Stage 2. I think we do our youngsters a disservice and I'm quite confident that we would sustain pupils' engagement and interest in the

> subject if we built on what they had at Key Stage 2 rather than repeating the experiences for some youngsters. Geography has got to take youngsters forward, its got to challenge and move them on in work, not stagnate as it might do in some schools at Key Stage 3' (Tim Jefferies, LEA Geography Advisor for Bridgewood).

While it will be some time before secondary schools' Key Stage 3 geography curriculum can recognise the advanced level to which some pupils have reached by covering sections of Key Stage 3 at primary school, there is certainly a need to look at the base from which Key Stage 3 is begun and the activities that would form the most appropriate link between Key Stage 2 and 3. Such an examination was undertaken by Davidson et al (1996), describing one of the aims of their 'Differentiation Project' as a desire to move away from the content driven curriculum and consider 'how' to teach. This philosophy was summarised as follows:

> 'Talking about teaching had become a thing of the past. It was time for teachers to consider their practice and rediscover many of the skills that were there within subject departments' (Davidson et al 1996 p30).

While this one example is encouraging the overall trend to pay scant attention to Key Stage 2 by secondary school teachers concurs with the findings of Williams and Howley (1989) where teachers were not 'acknowledging what pupils had or had not learned prior to transfer' (p74). If, therefore, the Geography National Curriculum has failed to rectify this situation, will the QCA schemes of work influence continuity and progression between primary and secondary schools?

Impact of QCA Schemes of Work on Continuity and Progression Between Key Stages 2 and 3

The introduction of QCA schemes of work for Key Stage 2 is perceived by many secondary school teachers as a way of improving continuity and progression across the primary-secondary divide. The main reason cited for this is being able to assume with some surety that even the non-specialist primary school geography teacher will be able to deliver a formalized geography curriculum at Key Stage 2. A notion supported by Westaway (2001). If wholesale adoption of the schemes of work could be achieved then secondary school teachers appear ready to respond by altering and adjusting their delivery of Key Stage 3 geography, with a corresponding reduction in the amount of overlap between primary and secondary schools:

> 'We've got so many feeders the kids come in handfuls rather than huge amounts from each primary school. To know that the majority of primary schools are sticking to the Key Stage 2 scheme of work would be a big help. We would have a much bigger understanding of where the kids were coming from and what they were bringing with them. It would be something that we could look at and say this is exactly what they've done and this is what we currently do and what can we do to strengthen them and avoid too much overlap' (Jenny Moore, Tillbrook Secondary School).

> 'It would be better for me if they had all covered the QCA [schemes of work] because we would know what the students had covered, where their strengths and weaknesses are' (Chris Hall, Honeyhill Secondary School).

Such comments are tantamount to assigning the Geography National Curriculum as a failure, at least with regard to enhancing continuity and progression. Thus, an increasing

emphasis appears to being placed on the QCA schemes of work by secondary school teachers in order to establish what has been taught at Key Stage 2.

Even here, however, reservations have been expressed by secondary school teachers that the schemes will not be able to be followed in the their format presented given the large number of competing curriculum pressures in primary schools. In addition, there is much reluctance to explore the possibilities of attuning the Key Stage 3 curriculum more to that of primary schools until secondary school geography departments can be assured that all their feeder schools are following the schemes of work.

Given the caution expressed, however, regarding the use of the schemes of work both by specialist primary geography teachers in particular and the LEA advisors interviewed, the chances of wholesale adoption of QCA schemes of work for Key Stage 2 by primary schools remain remote. There are also significant issues regarding curriculum delivery that a common scheme of work raises. If the QCA scheme of work were to be made statutory in its adoption by all primary schools, this may encourage more Key Stage 3 teachers to plan their courses with closer reference to the primary experience, but for Key Stage 2 teachers removes any professional right and responsibility to teach geography as they deemed fit. Put in the position of having to follow an externally dictated programme of study, it is unlikely that many secondary school teachers would favour the concept, yet in many respects, this is what is being requested. In documenting successful cross-phase liaison in Buckinghamshire, Smyth (1993) supports this concept of the dictated curriculum, describing how the local LEA heavily dictated the content of the primary

geography curriculum in the year prior to transfer to secondary school. Despite the possible favouring of a dictated curriculum, it is significant that when discussing this concept in terms of continuity and progression, secondary school teachers interviewed concentrated almost exclusively on content and not the learning experiences of primary school pupils.

It is interesting that usage of the first unit of the Key Stage 3 scheme of work is not widespread by secondary schools (Westaway 2001), yet this particular unit was designed as a linking unit to Key Stage 2. Thus, if QCA material is to be the vehicle for improving continuity and progression, then secondary school teachers as well as their primary colleagues, may have to reappraise their attitudes to curriculum planning as well as more teachers being encouraged to use the schemes of work.

Conclusion

It is possible to discern attempts at enhancing continuity and progression both within Key Stage 2 and Key Stage 3. Where geography schemes of work have been well planned, much thought appears to been given to the order and nature of topics. In seeking continuity and progression within Key Stage 2, skills are revisited and built upon and pupils' awareness of place is developed through increasing complexity of scale. Time precludes a revisiting of themes, although the more fundamental issue here is how themes also taught at Key Stage 3, are built upon by secondary schools, especially if little attention is paid to the Key Stage 2 curriculum. Revisiting of themes by secondary

schools can be interpreted as good continuity but repetition of content ignores progression, reinforcing the need for cross-phase liaison.

Continuity and progression within Key Stage 3 follows a similar pattern of skill and scale development, but little revisiting of topics. While the content and demands of the GCSE syllabus must be taken into account in planning Key Stage 3 teaching, equal attention should be given to Key Stage 2, especially if topics are being revisited. The tendency for primary schools to teach material from the Key Stage 3 syllabus only serves to reinforce this need. Only when secondary school geography teachers perceive Key Stage 3 as a pivotal phase can improvements in curricular continuity and progression be gained. In addition, a common criticism of attempts to achieve continuity and progression within both key stages is the lack of attention paid to methods of learning and ensuring that pupils' prior knowledge is built upon through challenging activities not just the introduction of new content.

Despite efforts prior to the introduction of the Geography National Curriculum (DES 1986), and subsequent publications after its introduction (Bennetts 1995a, Daugherty 1996), little progress has been made in overcoming the schism between primary and secondary schools in terms of achieving a curriculum where Year 7 is a development of the latter years of Key Stage 2. Secondary school geography teachers, for the most part, remain unaware of the nature of the primary classroom or of the geography that is delivered within it. Likewise, primary school teachers, even geography coordinators, have limited knowledge of the Key Stage 3 curriculum. It is, therefore, not surprising that

most Year 7 pupils are taught by secondary school teachers that assume they have very little previous knowledge of geography.

A number of schools are using Key Stage 3 material while still at Key Stage 2; a practice that Alcock (2001) asserts need not be taking place. On arrival at secondary school, however, it would appear that those same pupils are having to repeat work in such a way that further challenge is no longer evident (Ofsted 1999a), concurring with views expressed by pupils interviewed regarding the nature of teaching experienced at Key Stage 3. Where such a situation exists, disaffection and a performance dip will occur, as has been noted in other subjects (Galton et al 1999).

While not condoning the 'fresh start' approach at Key Stage 3, recognition is required of a number of factors outside the immediate influence of secondary school geography teachers that contribute to the lack of continuity and progression between Key Stages 2 and 3 (Doyle and Herrington 1998).

Unlike history, where topics are clearly defined, the flexibility of the geography order allows for numerous interpretations of the subject content. The potential this provides to focus more on skills, understanding and knowledge and less on detailed curriculum coverage may well, in the long term, provide a much better curriculum planning tool if supported by appropriate training and professional development (Westaway 2001). For secondary school teachers desirous of enhancing continuity and progression, however, this flexibility does not allow assumptions to be made regarding coverage of certain

topics at Key Stage 2. A tighter curriculum might well overcome this, and the potential that secondary school teachers see in the QCA schemes of work suggest that for Key Stage 2 content to be considered, a more definite scheme of work or National Curriculum needs to be written, although this counteracts the benefits of the current geography order that allows creative curriculum development (Rawling 2000a, 2000c) and would not necessarily be welcomed by all teachers. Given that subsequent revisions of the geography order have moved away from the content heavy earliest version, this is unlikely. The QCA schemes of work have raised awareness of the geography delivered in Key Stage 2, but as Chapter 4 illustrated, these still require exemplification and geography coordinators require support to formulate them into meaningful courses. With further work in this area, it may be possible to replicate and illustrate Key Stage 2 models more widely and hence raise awareness of Key Stage 2 geography.

The variable nature of the delivery of primary school geography further hinders secondary school teachers as well as impairing the academic progress of pupils in geography. As Chapter 4 indicated, although the Key Stage 2 curriculum is being delivered, the quality of teaching varies greatly from school to school. The role of the geography coordinator was highlighted as pivotal in this respect. While the needs of geography coordinators are ignored, and the resources for their professional development are not made available, it is difficult to perceive a change in assumptions so readily made by secondary school teachers. Standards in geography at Key Stage 2 need to be raised further (Ofsted 2001a), with progress made to date and the good examples of teaching built upon so that primary school pupils receive a more equitable geography experience.

Progression is also made difficult between Key Stages 2 and 3, given the variable quality of teacher assessments in judging the standards of pupils' work (see Chapter 6). Seen as a central part of progression (Bennetts 1995a), even if pupil records were transferred to secondary schools as a matter of course, the current unsatisfactory nature of teacher assessments (Ofsted 2000a) make use of those records limited. In addition, continuity is also hindered where pupils are taught Key Stage 3 topics, as although revisiting is considered good practice, repeating is not and secondary schools have great difficulty in avoiding the latter where Key Stage 3 material is utilised by primary schools.

Nevertheless, there remains little reason why secondary school geography teachers should not be making greater efforts to establish and act upon what has been taught at Key Stage 2. Implicit in the concept of continuity is the need to revisit and build upon previous material. Evidence would tend to suggest that, albeit unintentionally, a spiral curriculum is being delivered across Key Stages 2 and 3, and in certain circumstances within these Key Stages. There is, however, a preoccupation with content rather than the learning experiences of pupils and methods of delivering the content. Some teachers appear to see a change of content or increasing depth of content as progression in itself. The challenge and activities provided at Key Stage 3 take little account of a pupil's previous experience. Indeed, as observations from one LEA advisor interviewed demonstrate, some secondary school teachers mistakenly believe they are providing Year 7 and later years with new experiences when they have already undergone the same learning experience in geography at primary school. This, rather than repetition of

content, is what pupils expressed most dissatisfaction with. There is, therefore, an urgent need for primary and secondary school teachers to reappraise what progression involves and how it can be integrated into the curriculum. With overlap inevitable between the two Key Stages (and even desirable in terms of curriculum continuity) far greater attention needs to be focused on ways to build upon and challenge individual pupils learning experiences. Strategies such as ‘thinking skills’ may help provide a vehicle for achieving progression in this respect.

Continuity and progression between primary and secondary schools in geography would be immeasurably improved if the knowledge of what was being taught were communicated and flows of information more readily occurred between primary and secondary schools. It is, therefore, necessary to review the current extent of cross-phase liaison in geography and how cross-phase liaison could be used to enhance continuity and progression between Key Stages 2 and 3.

Chapter 6

CROSS-PHASE LIAISON BETWEEN KEY STAGES 2 AND 3 IN GEOGRAPHY

An integral part of achieving greater continuity and progression between Key Stages 2 and 3 would appear to be a need to foster better cross-phase liaison. Cross-phase liaison has been considered by many commentators an essential element of the primary secondary transfer, (Bailey 1978, Carter 1999a, Clarke 1992, Grimwade 1995, 1998, Jones 1999, Morgan 1996, Ofsted 1999a, Smith 1995, Smyth 1993, Steed and Sudworth 1985, Williams 1997, Williams and Howley 1989, Wood 2001) although efforts at achieving greater continuity between these phases have tended to focus on mathematics, English and science, where some progress has been made (Galton et al 1999). Geography meanwhile has received little attention from government bodies, such as QCA, and as such it has been left to individuals to report good practice, or encourage greater liaison between secondary school geography departments and their feeder primary schools.

Cross-Phase Liaison in the Midlands Region

In considering the present and future role that cross-phase liaison has to play in improving continuity and progression between Key Stage 2 and 3, it is first necessary to establish the current extent and nature of cross-phase liaison activities. This was achieved through the questionnaire survey by asking respondents about the nature of cross-phase activities undertaken. The activities themselves were derived from the literature on this

topic where geographical educationists are recommending, in many instances as minimum requirements, the undertaking of these activities.

The results from the questionnaire survey are shown in Tables 6.1 and 6.2.

Table 6.1 Cross-Phase Liaison Activities – Primary School Respondents[1]

Suggested Liaison Activity	Number of Primary Schools Participating
Exchanges of schemes of work for geography	2
Information on localities studied in the UK and overseas at KS1 and KS2	5
Transfer of pupil records/assessments in geography	24
Secondary teachers view samples of work completed by year 6 pupils	7
Teachers from the secondary school teach/participate in year 6 lessons	4
Fieldwork trips carried out jointly for year 6 and 7 pupils	0
Year 6 pupils spend a day at the secondary school in which they may participate in some geographical activity	36

[1]Based on 130 primary schools

Table 6.2 Cross-Phase Liaison Activities – Secondary School Respondents[1]

Suggested Liaison Activity	Number of Secondary Schools Participating
Exchanges of schemes of work for geography	5
Information on localities studied in the UK and overseas at KS1 and KS2	5
Transfer of pupil records/assessments in geography	9
Secondary teachers view samples of work completed by year 6 pupils	8
Teachers from the secondary school teach/participate in year 6 lessons	4
Fieldwork trips carried out jointly for year 6 and 7 pupils	4
Year 6 pupils spend a day at the secondary school in which they may participate in some geographical activity	30

[1]Based on 61 secondary schools

In addition to the information requested in Tables 6.1 and 6.2, respondents were asked to comment on the nature and frequency of meetings held with their primary and secondary counterparts. Only five primary schools held a meeting with member(s) of the geography

department in the secondary school. Significantly, three of these schools were in Bridgewood LEA, the others being a Charwell and a Greendale LEA school. Two schools met once a term in Year 6, one school twice a year in Year 6 and one school once a year in Year 6. The Greendale example was more infrequent on a one-to-one basis. Such meetings were set up 3 and 4 years ago, with one meeting being established only recently. From the secondary school perspective, 5 schools conducted a geography liaison meeting with primary schools, 1 once a year, 2 once a term, 2 infrequently. These meetings were established, respectively, about 5-6 years ago, 3 years ago and coinciding with the survey. A variety of people set them up including secondary heads of department, primary liaison coordinators, and a whole school feeder meeting where subject coordinators met. 2 schools had teachers from other primary schools present at these meetings.

A greater number of primary schools did participate in a more general meeting where aspects of geography may be discussed, where geography could be represented by various primary school staff, including Year 6 teachers, the humanities coordinator or the Head teacher. It would appear that geography might only be discussed if the representative had a definite interest in the subject. 17 secondary schools had a more general meeting at which geography might be discussed, with mainly the Head of Year 7 or Key Stage 3 or Humanities Coordinator representing the interests of geography.

The current extent of cross-phase liaison is exceptionally poor throughout the region. The greatest activity undertaken (transfer of pupil records) still only occurs in 18% of schools.

As one Charwell geography coordinator stated: ‘There is no liaison whatsoever between subject coordinators’.

While ten years has elapsed since Williams and Howley (1989) recorded no specific cross-phase liaison in geography between primary and secondary schools, the situation appears little improved and concurs with findings of other similar surveys (Westaway 2001, Hollywood 2001). The survey also falls well below the level of curricular linkage identified by Jones (1999) in Hampshire. In Bridgewood, however, a more positive situation was recorded. The pro-activity of Bridgewood LEA was again evident as two meetings were established by the LEA advisor, while year 6 teachers also played a part. Teachers from other primary schools were present at some meetings.

In order to understand why Bridgewood has succeeded more than the other three LEAs surveyed, consideration needs to be given to the overall structure put in place by the LEA to foster successful transfer between the primary and secondary phases. Bridgewood has organised its schools into clusters consisting of a secondary school and principal feeder primary schools. The LEA Advisor has been pro-active in encouraging curriculum groupings from those schools within a cluster to meet and discuss curriculum issues. This has taken place even though meetings invariably occurred after school. Schemes of work, pupils’ work and sharing of expectations all form part of such meetings. Jones (1999) and Smyth (1993) have indicated the importance of not only meeting in the school day, but also the support of headteachers in this process of greater liaison. Unfortunately, as some questionnaire respondents indicated, such meetings have not been sustained due to

primary headteachers wishing to protect the hours their staff participated in after school meetings.

Of the thirteen clusters in Bridgewood LEA, current cross-phase linking specifically in geography only occurs in two as although there are strong links between nearly all primary and secondary schools in the LEA, the main focus of activity remains the core subjects. In the remaining eleven clusters any geography cross-phase liaison is piecemeal. In the two clusters that were pro-active in their liaison, the main form of cross-phase liaison is exchange of schemes of work, exchange of pupils' work and some meetings - although notably no transfer of pupil records.

Unlike Bridgewood, Matthew Steele of Charwell LEA feels that the geographical spread and urban nature of the LEA makes cross-phase liaison meetings impracticable:

> 'Clearly meetings could work pretty well in rural areas where the secondary school is fairly clearly at the top of the pyramid involving a fairly limited number of feeder primary schools but practicalities in urban areas are pretty severe, so if you focus continuity and progression efforts there you are going to have to work very hard' (Matthew Steele, LEA Geography Advisor for Charwell).

While there exists a lack of primary – secondary liaison it is important to discern what factors inhibit such liaison and what could be done both in terms of activities and fostering a favourable environment for greater cross-phase liaison to take place.

Despite the dearth of cross-phase liaison activity across the region, it is possible to find examples, albeit at a small scale, where cross-phase liaison is taking place and

contributing to greater continuity and progression between Key Stage 2 and 3. It is, therefore, appropriate to review these examples before considering if they may act as model for other schools to follow.

Successful Examples of Cross-Phase Liaison

Example 1 – Honeyhill Secondary School

Honeyhill Secondary School is well placed to acquire knowledge and forge links with the primary sector given that within its grounds is located the Honeyhill Junior School. Nearly all pupils from the junior school transfer to the secondary school and the close proximity of a Key Stage 2 environment has encouraged the head of department, Chris Hall, and other members of the geography staff, to view the Key Stage 2 and 3 curriculum as a continuum. Chris Hall summarizes how this works in practice:

> ‘We have meetings about once a term. We have a site-liaison officer in school who coordinates the meetings for each subject including geography and we get the chance to meet with the juniors and infants and progression is one of the things we discuss as well as looking at sample topics and different initiatives which we all have an influence on. We help each other’s planning. For example, when they were discussing their European week where the timetable is altered so that each of their classes focus on a European country, they wanted to find out more from me what the pupils needed to study for Key Stage 3 with regard to Europe and the European Union, which countries we focus on, and they fine tune their European week to what they felt would be more useful for pupils when they came to our school. But it was done on a very informal basis.
>
> The other things we discuss are the opportunities for fieldwork, and we are looking at the possibility of having some junior pupils coming in and working with our students, for example weather studies, shopping surveys, but it hasn’t happened yet but I’ve got my eye on it for the future’ (Chris Hall, Honeyhill Secondary School).

Although this liaison activity is described as being on a very informal basis, it is apparent that the work undertaken at Honeyhill Secondary School represents a significant example of what can be achieved. In addition to the description provided above, teachers from both the junior and secondary school view pupils' work and the Year 7 intake, their capabilities and previous geographical experience, as a consequence are very well known by the geography staff at Honeyhill Secondary School.

The amount of cooperation and exchange is substantial and with the secondary school dictating to a certain degree the nature of the geography curriculum at Key Stage 2, exact repetition of material is avoided. Continuity is, therefore, achieved and progression from Key Stage 2 can be integrated into the scheme of work, as a topic is revisited with the knowledge of what has been covered at Key Stage 2.

Unfortunately, however, the practice is not extended beyond the campus limits, and as such Chris Hall reverts to previously documented assumptions regarding the Year 7 intake as a whole. This has the obvious disadvantage that having made significant progress in setting up liaison activities, pupils from Honeyhill Junior School will have to accept that their peers may not be so well prepared and thus be starting from a different level at Key Stage 3 to compensate for a lack of knowledge when a new topic or skill is introduced. Indeed pupils interviewed at Honeyhill who had transferred from the junior school were more critical of repetition of work at Key Stage 3 as they were lacking challenging tasks. While concurring with the sentiments of other pupils regarding

confidence being engendered by possessing prior knowledge, with regard to content the liaison that existed was not perceived as significantly advantaging them, although the contact with secondary school staff was considered advantageous.

Example 2 Tillbrook Secondary School

Tillbrook Secondary Schoolfocus their liaison activities through a highly successful summer school. Year 6 pupils due to transfer schools in the following September are invited to come and participate in a week long set of activities. These activities are based around the Charwell LEA's own transfer bridging project entitled 'Moving on Up'. Designed essentially as a vehicle for promoting literacy, and the avoidance of dips in standards of literacy, the materials contained within the pack have considerable flexibility in their usage. Most notable among these materials are resources on Charwell that have a distinctive geographical theme. In themselves, these materials do not promote greater continuity and progression in geography. However, one of the organisers of the summer school is Jenny Moore, head of the geography department at Tillbrook Technology College. As a consequence of this involvement the week's summer school has a distinct geographical flavour to its activities. This can be gleaned from the daily programme of activities shown in Appendix 7.

An overall impression of the work undertaken in the summer school week at Tillbrook is that of a lot of good geographical issues and concepts being introduced. Although the 'Moving on Up' folder is designed to promote literacy, the adaptation of its contents by

Jenny Moore demonstrates how geography can be an exceptionally effective vehicle for promoting literacy, as Thompson (2001) has demonstrated with the Cheshire LEA literacy/geography link project. Throughout the week's activities there are opportunities for literacy work (at times purely literacy activities take place). This concept of promoting literacy through geography is, of course, very familiar to primary schools. The fact that this is taking place in a secondary school setting, however, is significant. As the drive to improve literacy and numeracy begins to focus at Key Stage 3, such projects may become common place in secondary schools. Indeed, Galton et al (1999) suggests such summer schools as a strategy for improving transfer from Year 6 to Year 7.

Given that the Tillbrook summer school promotes good geography and literacy learning, what significance does it have in terms of improving continuity and progression specifically in geography? In a similar fashion to the Honeyhill example, the work being undertaken at Tillbrook fails to make the contribution it should to continuity and progression because the summer school does not reach all (or even the majority) of the new Year 7 intake. Pupils who participated in the summer school confirmed this. While appreciating the knowledge gained about Charwell, in terms of improving their transition to Key Stage 3, little benefit or link was perceived with their Key Stage 3 course as work was being repeated in Year 7. By far the greater benefit was considered to be pastoral in that pupils met their geography teachers. Pupils who had not participated in the summer did not consider themselves to be disadvantaged by missing this experience.

As such, assumptions regarding Year 7 ability and knowledge in geography have to be made which negate the work undertaken during the summer school. Its real significance is in providing a template that could be developed into a fuller cross-phase liaison project. Jenny Moore recognises this, describing the summer school as ‘a positive step’ and is already looking to enhance future summer schools to forge greater links across the primary/secondary divide:

> ‘Right now its just Tillbrook staff. Perhaps we need to do it with primary staff getting them involved too, they have got more of the primary element’ (Jenny Moore, Tillbrook Secondary School).

Use of such staff would further enable the transition across the week from predominantly a primary approach to one of mainly secondary school work.

Ultimately, however, if such a summer school is going to be an effective tool in promoting continuity and progression it will need to be experienced by the majority of pupils coming into Year 7. For this to happen would require whole school decisions not only at the secondary level but at the primary and LEA level as well. The summer school would need to be transplanted into curriculum time. While many primary school pupils spend an induction day at their secondary school, Jenny Moore sees the summer school as providing a model for a different type of induction:

> ‘If you actually got something into the timetable of the end of year of a secondary school, that for four days at the end of term the new intake would come in and you would do some sort of cross-curricular, cross-phase project and you worked with the primary staff to develop that, then that would be something more sustainable and, therefore, more useful. I would like to think awareness is being raised by that kind of

> project going on, and that would mean lowering your mind when you are considering planning for the next year and Key Stage 3' (Jenny Moore, Tillbrook Secondary School).

Such an initiative is supported by Galton et al (1999) in calling for 'extended induction sessions' (p26) of up to five days where Year 6 pupils work with pupils not only from Year 7, but also Years 8,9, and 10. Galton's recommendation is intended as a whole school approach and indeed, the Tillbrook Summer School, and any potential future developments of it, is likely to remain a broad cross-curricular contribution to primary-secondary transfer, rather than a subject specific continuity and progression. Nevertheless, such initiatives do provide the opportunity for some geography to be taught (which is not guaranteed under present arrangements in most schools where pupils from Year 6 spend just one day at the secondary school) and that teaching could be developed further at the start of Year 7. For it to be utilised in its most effective way, however, other forms of cross-phase liaison will need to take place.

Example 3 Catworth Primary School

While individual initiative can be seen in the two examples outlined, it is very much in evidence in the example of Catworth Primary School. Through personal expertise and enthusiasm, Sophie Thompson has ensured that the geography delivered at Catworthis of a very high level. In an attempt to ensure that the progress made by pupils at Catworthis built upon the geography coordinator, Sophie Thompson has individually set up liaison between Catworth Primary School and the secondary schools to which pupils continue onto. The main thrust of this liaison is in exchange of information:

> ‘When I first started here as a Year 5 and 6 teacher, I was very keen to make links with secondary schools and make sure that what I did followed on but also that I was providing the children with the right sort of start for secondary school so we developed links. I actually get back from several of the secondary schools all the Year 7 test results for example in history and geography, as well as in maths and English, but certainly in history and geography I have phone calls to say whether they are coping or not’ (Sophie Thompson, Catworth Primary School).

The example of Catworth Primary School shows what can be achieved by individual persistence, although whether all geography coordinators would be willing, or have the time to pursue such links remains doubtful. This case study also raises the question of who should take responsibility for cross-phase liaison. While Sophie Thompson’s efforts are admirable, the value to the secondary schools concerned will be dependent upon the information passed on by other primary schools. If similar information is not forthcoming, then the secondary school will be forced into once more isolating the primary pupils from, in this case, Catworth Primary School, in order to start Key Stage 3 from a common base.

Example 4 – Miscellaneous Cross-Phase Liaison Projects

In addition to the main case study material, the questionnaire survey highlighted a number of other, small scale cross-phase liaison projects, notably in Charwell. Here, the LEA has set up a transfer document for Years 6 and 7 entitled ‘Bridge the Gap’. Although this document has a literacy/history focus it is intended to be the forerunner of a similar document that will cover geography. In one primary school, a member of the geography department from the secondary school has visited frequently and participated

in a Year 5 rivers field study. Meanwhile in Greendale, a cross-curricular liaison project has been established, entitled ‘Building Bridges’ where a Year 6 teacher visits a local secondary school and work together on a project involving science, technology and mapping.

The examples quoted all raise important questions regarding the nature and potential of cross-phase liaison. In particular, it is necessary to establish whether the viewpoints of primary and secondary teachers are dichotomous or whether there is broad agreement on what could be done to enhance relationships between the two sectors.

Obstacles to Primary-Secondary Liaison

Time

By far the greatest perceived obstacle to successful liaison is that of a lack of time. This includes not only non-contact time for primary teachers making meetings during the day impossible, but also other teaching commitments, finance for covering absence and the demands of the National Curriculum meaning that meetings can only take place after key stage tests in May. This prompted one respondent to suggest that if meetings were to take place, they would need to be early on in Year 6, not at the end. Sophie Thompson illustrated the difficulties in the following way:

> ‘There has got to be more cross-phase but the practicalities of it are so difficult. The summer term is my busiest term by far for after school work and for the children’s

work because at this time of the year you've got testing, you've got results coming in, you've got reporting, you've got induction, you've got all the things to do with term going onto their next school and yet it's the high schools and grammar schools probably least busiest time of the year because they lose year groups for exams and this sort of thing and trying to find a day when I can actually go to a secondary school and liase is very difficult. There is no one who would instigate it more than I would. I would love for there to be more liaison but actually finding the time, amidst everything else that you've got to do, is almost impossible' (Sophie Thompson, Catworth Primary School).

John Richardson, of Galsey Primary School, concurs with this sentiment. When discussing the value of a geography coordinators' meeting the following observation was made regarding the timing of such a meeting:

'I don't think the primary schools would see it as particularly valuable. It wouldn't happen in the summer term, you know you're right in the middle of SATs, everyone's report writing, there are athletics events – at the end of term people are not going to turn up to go through a meeting about geography. It's sad but that's how it is' (John Richardson, Galsey Primary School).

The lack of non-contact time for primary school staff is also an inhibiting factor to cross-phase liaison:

'I think it's got a lot to do with time. At secondary you have more non-contact time that perhaps you've got time to sort of sit down and think what you're doing or going to do, such as time to have liaison meetings and things. Everything like that we want to do at primary school is after school, you know we don't have enough non-contact time to do anything like that. If we could have perhaps half an hour a week or an hour a fortnight or something. More non-contact time that we could actually go into secondary schools and see what the children are doing' (Louise Matthews, Woodleys Junior School).

Secondary school teachers also perceive time as the most inhibiting factor to cross-phase liaison with 41% (25 schools) of respondents to the questionnaire survey identifying this

as a major obstacle. In particular, the lack of time to meet with primary school colleagues was seen as a major prohibiting factor.

Of particular importance has been the removal of the statutory requirement to fulfil all aspects of the Geography National Curriculum and the increased emphasis on numeracy and literacy. This has had a major effect on the delivery of geography, but has also impacted on the desirability and feasibility of liaison in geography. Where liaison does take place between primary and secondary schools at a more general level, literacy and numeracy are the issues discussed and/or information requested, with the addition of science in some instances:

> 'If geography is no longer perceived important or significant, it does not receive time in INSET, budget or liaison by individual schools, so staff cannot attend joint meetings' (Geography Coordinator, Charwell).

Geography, therefore, appears to have progressed little with regard to cross-phase liaison both prior to and after the introduction of the National Curriculum when commentators such as Bardwell (1995), Szpakowski (1985) and Williams and Howley (1989) highlighted the perceived importance of the core subjects for liaison rather than the foundation ones. The same situation exists today (Westaway 2001). In the study of liaison activities in Hampshire, Jones (1999) described as a prerequisite for success meetings timetabled within the school day. With schools now controlling their own INSET funding, and headteachers no longer supporting even meetings out of school hours, as in Bridgewood, the support structures necessary for successful liaison appear to

have no solid foundation. Whether this situation is improved through the DfEE's (now DfES's) continuing professional development initiative (DfEE 2001) remains to be seen.

Number of Schools

Another common fact inhibiting liaison was the number of secondary schools pupils from any one primary school move onto. Primary school respondents to the questionnaire indicated that this was often over 10 per year and up to 20 secondary schools was not uncommon. Secondary schools perceive this as an even bigger obstacle:

> 'If you tried to call a geography co-ordination Key Stage 2/ Key Stage 3 meeting you would need at least one teacher from each primary school, plus myself, so you would be looking just from this school alone at a meeting of about 25 people and it would be very difficult' (Chris Hall, Honeyhill Secondary School).

The frustrations regarding the number of feeder schools is supported by similar conclusions arrived at by Doyle and Herrington (1998), Smyth (1993), and Wilmut and Emery (1998). The negative attitude adopted by secondary school teachers, such as Chris Hall, was also highlighted as a factor in the Hampshire study by Jones (1999) where frustrations were expressed due to the non-attendance of secondary school teachers at pyramid meetings.

Other Factors

Many of the factors inhibiting liaison are similar to those that appear to provide obstacles to continuity and progression between Key Stages 2 and 3. Once more, the respective attitudes of primary and secondary staff seem paramount in accounting for the lack of willingness to forge links. The attitude of Key Stage 3 teachers received particular criticism. One Charwell geography coordinator described secondary departments as believing 'this is where the real work starts'. Another also commented, 'Years ago we offered portfolios to secondary schools but were told they weren't interested'. There was a recognition, however, that the wide range of experience at primary level would discourage liaison on the part of the secondary school:

> 'What we have taught will be discounted at Year 7 because of a wide intake from a range of feeder schools' (Geography Coordinator, Oakleigh).

The lack of subject expertise and the demands of the other National Curriculum subjects also discouraged any form of liaison. As one geography coordinator in Charwell commented:

> 'Secondary teachers do not have a realistic impression of pressure on Key Stage 1 and 2 teachers. [They] expect all Key Stage 2 teachers to be experts in geography and forget all the other subjects they have to teach and be experts in. In Key Stage 2 most pressure to teach English, maths and science (and religious education in catholic schools) because these are tested' (Geography Coordinator, Charwell).

Such obstacles to cross-phase liaison have contributed to the demise or dilution of previously successful liaison projects. Whitely Abbey Primary School is one such school.

Here, the primary staff received a visit from secondary school staff once a month. Although this was in a designated subject area and not always the same subject area, there was a member of staff visiting with the responsibility for geography, history, religious education and personal social development. This no longer takes place, being subsumed by teacher visits for the core subjects.

Factors Encouraging Cross-Phase Liaison

The general factors that were considered to encourage greater cross-phase liaison not surprisingly mirrored those factors identified as inhibiting closer links between primary and secondary schools. In particular, the issue of time being created within the school day or at an appropriate occasion such as an INSET day was listed by many respondents to the questionnaire. There, were, however, a number of other suggestions. These included activities already listed in the questionnaire as well as other ways of achieving cross-phase liaison. Each aspect of cross-phase liaison is, therefore, considered separately below.

Transferal of Records and Documents

60 primary schools kept records of achievement in some format. By far the most popular form of record keeping was a geography based sheet recording achievement against National Curriculum levels or key objectives and skills, while a number of schools also adopted end of theme or topic assessments. Portfolios of work from all year groups to

represent different levels of achievement were also kept by many schools surveyed. Work was frequently assessed using a school's own assessment criteria. Schemes such as 'Above average, average, below average', 'good, satisfactory, disappointing' or 'struggled, managed, zoomed' were all used.

Record keeping in geography is clearly fragmented in its approach and inconsistent. Given that guidelines on record keeping in geography allow the individual teacher to decide what should be recorded (Hillary 1998), this may not be too surprising. Guidelines on record keeping and assessment produced by QCA (QCA 1998a) could be enhanced to provide valuable support in this area. Nevertheless, despite a clear need for more and consistent record keeping in geography (Hillary 1998), the fact that nearly half the number of schools in the region kept records begs the question why only a minority of these transferred those records to secondary schools.

Transferral of records, schemes of work and examples of pupils' work have often been cited as good practice in encouraging greater continuity and progression between Key Stages 2 and 3 in geography (Morgan 1996, Smyth 1993). The questionnaire survey illustrated, however, that this takes place in only a minority of schools. 24 (18%) primary schools and 9 (15%) secondary schools indicated they exchanged pupil records and assessments in geography. Nevertheless, this was still one of the most common forms of cross-phase liaison. Yet there is, however, little consistency in the documentation produced at primary level. Geography at the end of Key Stage 2 elicits only a minor mention in pupil reports. Woodleys Junior School is a typical example. Here the only

formalised record keeping for geography is one sentence in the end of year report on a side of A4 that also includes comments on history, art, music, physical education, general progress and a headteacher's comment. Meanwhile, the remainder of the report allows for much greater comment on English, mathematics and science with teacher assessment levels and SATs results also recorded. Given that formal level assessments are made in geography the significance of the individual pupil record, with more detail than just end of key stage levels, has been reduced. Louise Matthews, geography coordinator at Woodleys Junior School admits that the brief description of a pupil's achievements and progress in geography at the end of Key Stage 2 will be of little value to the secondary school. This practice also reflects the limited guidelines on reporting writing published by SCAA in 1997. This view is, however, rejected by Tim Jefferies who feels that the primary school report should be made available to secondary schools:

> 'At the end of Key Stage 2, the point of transfer, primary school teachers get a strong steer from the LEA, a strong steer from the QCA, that those comments on those reports should not be describing pupils' experiences but should be diagnostic suggesting the children's understanding, knowledge and skills in the subject. As for the information, which is a paragraph at most, that would be most useful to the secondary teachers in the schools. Now those reports, although the primary audiences are the parents, if they're of the quality that we're asking, or insisting, that they should be, they serve more than just parents – they would be useful to secondary schools as well. So it might be useful and would be useful to get those transferred across, but we would then have to work with the secondary teachers to suggest to them how to use this, because without that input they will just see it as more paperwork coming in their direction, not seeing the potential underpinning that information to be able to use' (Tim Jefferies, LEA Geography Advisor for Bridgewood).

There are, schools, however, that do keep more detailed records in geography. Spanoak Primary School is one such example. Here an exceptionally detailed pupil record is kept in the form of a class spreadsheet (see Appendix 6). With National Curriculum

programmes of study being listed and a simple but effective five symbol progress key being adopted, it is not only possible to build up an accurate records of geography covered, but also ensure that for certain pupils, continuity and progression can be achieved by revisiting those topics where difficulty was experienced. For example, in assessing whether pupils can suggest suitable geographical questions and use a range of geographical skills to help investigate places and environments, a field work exercise is undertaken looking at various aspects of the local area. Pupils are encouraged to question, for example, the effect a recently built supermarket has on the smaller local shops. Felicity Wall, geography coordinator at Spanoak Primary School, describes it as the 'where? what? why?' approach. Pupils are then assessed on the quality of questions they pose. Such a spreadsheet, when completed, is easily transferred to secondary school. While such information could be used for individual pupils, a cursory study of the information also gives a reliable impression of the geography covered by that class and their abilities in meeting the programmes of study. These records are then passed up to the secondary schools with which Spanoak have closest links.

Such a detailed recording system as that used at Spanoak Primary School provides a possible model for improved record keeping at Key Stage 2. At present, however, the majority of primary schools only concentrate on recording data in English, mathematics and science. With schools such as Woodleys Junior School representing the norm in geography record keeping in the short term at least, if information is to be transferred that is utilised by secondary schools this is likely to have be in a different format. Indeed,

Louise Matthews questions the value of transferring individual pupil records in geography:

> 'I think a more general piece of information would be more useful than individual records about "this child can read a six figure grid reference". I think the amount of children you are talking about in secondary school, I think its too much paperwork for the sake of it' (Louise Matthews, Woodleys Junior School).

Even Felicity Wall acknowledges that the record keeping system adopted at Spanoak Primary School has its limitations:

> 'This kind of record scheme is a lot of paperwork, and it is only what the children are doing at that stage' (Felicity Wall, Whitely Abbey Primary School).

A further problem with individual pupil records is that many teachers considered their assessment of pupils at primary level was not valued by their secondary colleagues, attributing a lack of progression across the Key Stages to refusing to take account of where primary pupils had reached at the end of Key Stage 2. One coordinator commented that where liaison had taken place previously, secondary schools 'were surprised at the depth of study which is often repeated at secondary school'.

Matthew Steele concurs with this viewpoint, and as a consequence feels that transfer of records is of limited use:

> 'The slight problem with things like exchange of records is that primary teachers often have minimal confidence in sending records or that sending work is worth their time because their perception that much of what they send is ignored. I don't know whether that's true but its certainly a fairly widespread perception and of course if you've got

80 feeder schools from the teacher's point of view starting in Year 7 you can see that it is pretty difficult to make good use of them even if you have them' (Matthew Steele, LEA Geography Advisor for Charwell).

In confirming Matthew Steele's suspicion that most records are ignored, Richard Smith sheds doubt on the ability of primary school teachers to award levels that are consistent with the national curriculum as a whole:

'I think it could well be that level 5 at Key Stage 2 is different to level 5 at Key Stage 3...their Key Stage 2 results have to be our starting point in geography. Now it might well be that those youngsters at the end of Key Stage 3 are still on level 5 and it is very difficult to show progression through the levels and I think there is a big issue about where youngsters coming up from primary schools are not having over inflated levels' (Richard Smith, Colgreen Comprehensive School).

Such suspicions are confirmed by Doyle and Herrington (1998), Ofsted (1999b) and Simpson and Goulder (1998). While commenting on 'a significant improvement in the quality of teachers' assessments of pupils' work' at Key Stages 1 and 2, Ofsted (1999b) asserts that such assessment, nevertheless, 'remains unsatisfactory in over a third of schools' (p1). In Charwell LEA a similar problem exists in that assignment of levels at the end of Key Stage 2 is not common practice:

'Very few of our Charwell schools agree a level at the end of Key Stage 1 or Key Stage 2 for geography. They don't have to – they've got other priorities. Some schools who have a really good assessment policy will have the notion of end of unit summative assessments but that would be in terms of what you had achieved and not necessarily be level related. So there would be as much diversity of practice there as in diversity of what you've been taught' (Matthew Steele, LEA Geography Advisor for Charwell).

Although some secondary school teachers would like information on levels achieved in geography (Chris Hall at Honeyhill Secondary School, for example), the likelihood of

records such as those at Spanoak Primary School being kept as common practice seems remote. As Sophie Thompson says:

> 'I used to send levels up but I don't anymore because of the burden of levelling in every single subject is too difficult' (Sophie Thompson, Catworth Church of England Primary School).

Despite the assertions of Morgan (1996) that the National Curriculum would improve record keeping and encourage better liaison and the advice of QCA (QCA 1998c) on sharing understanding of levels of attainment, the use of record keeping as a tool in liaison appears limited. While Ofsted (1999b) cites better assessment strategies as necessary for improving standards at whole school and pupil level, it is clear that much work needs to be undertaken within Key Stage 2 in this area. The difficulties of level assignation (Butt 1995) have only compounded the situation, leaving secondary school teachers very wary of any statements of pupils' progress at Key Stage 2 (Doyle and Herrington 1998). In addition, Henry (2001) reporting on survey findings in maths and English, reveals that a major weakness in record transferral in the core subjects is the late arrival of information from primary schools, often not until Christmas after Year 7 pupils had entered secondary school. If, therefore, records of pupil information are not deemed helpful, what other forms of information might be considered worthwhile?

Transfer of Schemes of Work

Secondary school teachers would appear to welcome some form of scheme of work or list of topics covered at Key Stage 2, and indeed an exchange of such schemes finds favour amongst many of those teachers interviewed:

> 'I'm not particularly bothered about records as such – you know, teacher assessed levels, if that's what they give them – but yes, just a scheme of work, knowing what topics they will have done. I think that would be useful' (Debbie Dixon, Hawkswell Comprehensive School).

> 'Swapping schemes of work would be useful if they had copies of what we cover in Year 7, any materials that we use and vice versa, then we certainly be able to use that in our planning and what they do need to have more information about and what they should have already covered' (Jenny Moore, Tillbrook Secondary School).

> 'What I would like from each school is perhaps just a brief statement about what their students have covered in each subject, the non core subjects, so that we have some idea. It's a bit much to ask each school to find a level for every student in every subject, but I certainly think there's scope for saying "At the end of Key Stage 2 in our school in geography our students will have..." and a short list of what has been covered so we can carry it on from there' (Chris Hall, Honeyhill Secondary School).

Although such an exchange of information does take place (Sophie Thompson at Catworth Primary School, for example, sends a report to secondary schools on the geography covered and skills acquired at Key Stage 2), there is little evidence to suggest this practice is widespread, with only 2 (2%) primary and 5 (8%) secondary schools in the regional survey indicating that schemes of work are exchanged. The enthusiasm for such information exchange emanates far more from the secondary schools rather than primary teachers, the volume of paperwork currently besetting primary teachers being

accountable, at least in part, for this attitude. There is, nevertheless, some recognition of the value of such information and certainly primary staff would appear to consider this a more workable and realistic form of cross-phase liaison than information being transferred on individual pupils, thus supporting Grimwade's (1998) and Smyth 's (1993) suggestion of exchanging curriculum plans as a way of improving continuity and progression.

Samples of Pupils' Work

A related issue is that of exchanging samples of pupils work. Again very few primary and secondary schools are again involved in this practice, 7 (5%) and 8 (13%) schools respectively. Where location favours easy viewing of samples of work (as at Honeyhill noted above) this practice is popular. The majority of secondary school teachers, however, would require some form of transfer of work samples. Rather than samples of work for each pupil, Tom Evans at Crowhill Comprehensive School advocates a sample of work to illustrate the range of work being undertaken. The samples of work included for illustration (Appendix 4) show how this might provide a better insight into the geography taught and the level at which pupils in Years 5 and 6 are working. Many commentators have alluded to the value of this practice (Doyle and Herington 1998, Jones 1999, Morgan 1996, Williams 1997, Wood 2001). While such a practice would obviously inform secondary schools of their particular feeder schools work in geography, the mechanism for drawing attention to the standards of Key Stage 2 and 3 geographers may need to be altered. In particular, publication of Key Stage 2 work in *Teaching*

Geography and Key Stage 3 work in *Primary Geographer*, where contributions have tended to remain specific to the two sectors (Bowles 2001, Chapman 2001a). A new QCA website upon which it is intended to published exemplar pupils' work to exemplify standards (Rawling et al 2001), could also be developed for this purpose. In addition, Westaway and Rawling's (1998) call for more cross-phase activities in textbook writing is pertinent in this respect.

Teaching Staff Visiting Schools

While sceptism remains regarding the use of information exchanges by primary and secondary schools, both sectors are in agreement regarding the potential value of teachers from Key Stage 2 spending time in secondary schools and those in Key Stage 3 visiting the primary classroom. Smith (1995) and Williams (1997) cite successful examples of this practice. Significantly, such a form of cross-phase liaison is preferred to meetings between coordinators and the secondary school heads of department. As yet, however, only 4 (3%) primary and 4 (7%) secondary schools participate in some form of teacher exchange. Nevertheless, the value of such exchanges as highlighted by Doyle and Herrington (1998) is supported by primary and secondary school teachers:

> 'I would love the secondary school teachers to come into Year 5 and 6 and actually see what the children are doing in geography lessons, see how we're teaching and what they can and cannot do, what sort of level of understanding they have about things. From my own point of view, I would love to go into secondary schools and see how, what, they're coming from, how they're being taught, what they're now learning, what they need to know, and actually visiting the children as well' (Louise Matthews, Woodleys Junior School).

Such an exchange would not only inform teachers about current practice and teaching styles in primary schools but would also facilitate an understanding of primary school pupils' perception of geography as a subject:

> 'I think it would be useful for secondary staff to go down and see what's going on in the primary schools. You know what's on paper and you know what the Key Stage 2 curriculum is asking for, but what is actually being done in the classroom? It would be useful to see and talk with the kids to see what their opinions of geography are. Do they see it as a subject at that stage or are they coming in to a new school and thinking its a new subject and they just did it when they did their projects or a fieldtrip to wherever and they did some river work or map work while they were there...and then look at how schools are taking the [QCA] schemes of work and how that is being implemented' (Jenny Moore, Tillbrook Secondary School).

Meanwhile, this form of cross-phase liaison is perceived as one of the principal ways in which such contact between primary and secondary schools can benefit pupils, both pastorally in easing transition into secondary school and academically as it will highlight what has actually been done and thus facilitate greater continuity and progression. Louise Matthews expressed such benefits in the following way:

> 'If pupils have actually met some of the teachers from secondary school who are coming in to visit them, they know the teachers are talking to each other so they know what they've done at primary school is going to follow on and they're going to be able to build on that directly going to secondary school' (Louise Matthews, Woodleys Junior School).

Thus the widespread support for teacher exchange would appear to indicate that this area of cross-phase liaison should be developed further, as Doyle and Herrington (1998) Morgan (1996) Murdoch (1986) and Smyth (1993) have postulated. The face-to-face contact of primary and secondary colleagues is deemed to be the most effective way of

making progress in enhancing cross-phase liaison. That such contact should take place in the environment of a working classroom is significant. There is little support for meetings; in part due to the time restrictions identified, but also that such meetings will not allow teachers to experience their respective classroom environments. Exchanges of information will help bridge some gaps but as Jenny Moore suggests, this is no substitute for classroom experience. Interestingly, Sue Nicholls of Wittington Oval Primary School, while fully endorsing the need for teacher exchange cautions against this being lessons fitted in at the end of Year 6, even though this is a recommendation of Doyle and Herrington (1998). In a similar way to the suggestion that any meetings between primary and secondary colleagues need to take place throughout Year 6, Sue Nicholls suggests that teacher exchanges need to be on a rolling programme, not just across Year 6, but also Years 5 and 6 and possibly even lower down into the Key Stage. In this way, secondary school staff would gain a much fuller appreciation of how pupils in Year 5 and 6 were maturing as well as sampling a range of geographical learning experiences, not just an end of year or school teaching environment.

At present, there is little teacher exchange in geography. While most secondary schools will send a Year 7 coordinator or similar to feeder primary schools, the information discussed often focuses on individual pupil needs and work undertaken in English, mathematics and science. There is little, if any, feedback, on geography. At best, primary school pupils see one or two teachers with whom they may come into contact on transfer. There is much enthusiasm for more teacher involvement, although issues of timetabling and other significant whole school issues will present difficulties in carrying out such

exchanges. Chris Hall, for example, would extend an invitation to any primary school teacher to visit Honeyhill Secondary School, but recognises that time constraints prevent this, while Louise Matthews is desirous of more non-contact time but appreciates that in creating such time puts increasing financial pressures on schools. Nevertheless, given the value that both primary and secondary teachers place on this form of cross-phase liaison, then such issues need to be addressed to find ways in which teacher exchange can be accommodated at Key Stage 2 and Key Stage 3.

In supporting the notion of teacher exchange, Matthew Steele calls for far more focus to be placed on the learning environment and how children learn in geography, not for teachers to be using such exchanges as an opportunity to gain factual knowledge of what is being taught in the subject:

> ‘If there was better communication on the culture of the primary classroom and the secondary classroom between teachers and pupils, so that secondary teachers were better informed about what happens in primary classrooms and the sort of learning that goes on there, how its managed, so that they didn’t have a deficit view of what happens, or primary teachers were to be involved in what happens in secondary schools so that they can better prepare their children in the latter stages of Year 6. I think more attention to the environments for learning, the way teachers and pupils interact which can be significantly different in primary and secondary schools – I think that would be a significant step and inducting children more into how we learn in geography rather than what we learn would be more my focus rather than trying to square the circle and take account of two hundred children’s different experiences of geography . Primary schools have made huge strides on the back of the literacy strategy, national numeracy strategy. I think it would be very interesting for secondary teachers to be inducted into that and particularly getting children to think about how they learn and adopting perhaps some of thinking skills approaches and then thirdly greater attention to assessment and evaluation – helping children to be clearer about what their learning goals are and how they are going to achieve them’ (Matthew Steele, LEA Geography Advisor for Charwell).

There is a distinct difference between the culture of the primary classroom and that of the secondary. Teacher exchange, even at a superficial level, will be of value, although as Matthew Steele's comments illustrate, there needs to be some thought given as to the purpose of colleagues visiting primary or secondary classes. To this end, to blandly propose Year 6 classes being taught by secondary school teachers and Year 7 classes by primary school teachers, as has been suggested as a worthwhile form of cross-phase liaison (Morgan 1996), may be misguided.

Bridging Projects

Grimwade (1998) suggested, as a cross-phase liaison initiative, a project begun in Year 6 and completed in Year 7. To date, however, the bridging material that has been published has focused primarily on literacy, numeracy and science where they are considered a powerful transfer tool (Doyle and Herrington 1998, Galton et al 1999, Hall 2000, Mann 1997). One exception to this is the Lincolnshire link project on traffic (Wood 2001). Given the potential of such projects, are such bridging materials appropriate for use in geography and do they indeed provide the necessary continuity and progression between Key Stage 2 and 3?

There would appear to be a certain enthusiasm for such projects. Indeed, primary school teachers not only believe they would aid continuity and progression but more fundamentally refocus attention on the foundation subjects in Year 6, which has an inevitable SATs orientation. Given that the SATs currently take place in May, there is a

substantial amount of curriculum time where bridging projects could be introduced. As Sue Nicholls comments:

> 'I think that that would be superb and also Year 6 teachers would be extremely interested in this because in real life you get SATs tests finished and you think now what next? I mean even the children because they know that when they have got to SATs they have got to the end of primary so you're looking at some sort of project or some sort of initiative which fills that gap, so if you had something from geography or any other subject area I am sure that 99% of Year 6 teachers would be pleased. Something real life for the children to do because we can say to them there's a reason for this, it is to get you ready for secondary school' (Sue Nicholls, Keysoe Primary School).

The post SATs time is the time of year designated for the Lincolnshire link project, reinforcing this as an opportunity to reintroduce geography to the primary curriculum (Wood 2001), although Iwaskow (2001) has cautioned that such a period of time must not be viewed as a reward at the end of SATs and that any such project must ensure planning for progression. Indeed some pupils interviewed commented that the geography undertaken post SATs lacked structure and was not treated seriously by them.

As LEA advisor for Charwell, Matthew Steele also warmly supports the notion of a bridging project or unit:

> 'Clearly bridging units would be great, they would help primary schools out, there is this sort of space after SATs when Year 6 teachers routinely report that the children think they are finished, they are getting anxious about their new schools, we need to keep them occupied. The pressure is off from the maths and English point of view so there is a definite opportunity there and I think that if primaries felt that it was going to be used and the information was going to be moved on when they got to their new schools, they would wholeheartedly endorse that. From the geographical point of view it would be great if that focus started inducting children into enquiry skills, and what that means for being a more grown up geographer if you like. How they've been

> enquiring in primary schools might look a little bit different in Key Stage 3 and perhaps focusing on how we learn geography as much as what we learn. The example I would chose in Charwell would be something focusing on the changing urban environment of the city centre – something which is interesting and relevant but still supports good learning. I think the record keeping would be much more relevant if it was linked to a bridging unit to be honest because you could send children up to their new school with an example of the work they've done which of course has far more meaning for children and teachers rather than just curriculum levels' (Matthew Steele, LEA Geography Advisor for Charwell).

Such positive comments not only endorse bridging units as a positive way of achieving cross-phase liaison, but also give much support to the developing of, in Charwell at least, the Tillbrook Secondary School model which indeed does focus on the changing urban environment.

Bridging units, however, do have issues that complicate their wholesale adoption. While the potential of bridging units in geography appear to be welcomed with enthusiasm at present, it is unlikely that there would be room for a bridging unit in each of the foundation subjects in primary schools. If such material were to be produced, it is apparent that the introduction of such a project would have to be carefully planned so that the majority of primary and secondary school teachers were working with the material. Once more this raises the question of who should take responsibility for initiating cross-phase liaison? Sue Nicholls believes that such a pack must originate in secondary schools and be sent down to primary schools for it to be successful. A pack being sent to primary and secondary schools would not engender contact, and assumptions would not necessarily be made of what was being covered or indeed if the material was being used at all. If secondary schools were to take the initiative, then Sue Nicholls feels a bridging project would be very successful. Being able to continue with the same pack of materials,

developing themes and skills introduced at primary school in a more complex manner, would be exceptionally beneficial to the pupils. Familiarity would ease transition, as well as allowing skills taught at Key Stage 2 to be reinforced through material that was new, challenging yet known to the pupil (Wood 2001). It may also enliven some of the more traditional Year 7 skills terms that repeat the teaching of skills already covered at Key Stage 2. It is likely, however, that such bridging materials will need to be produced through a professional association such as the Geographical Association or even QCA and through their auspices encouragement given for adoption in school. In Lincolnshire, the linking project works in part due to a strong cluster group of schools and the active involvement of the LEA advisor (Wood 2001). The structures that would support such a project are being eroded in the Midlands. Tim Jefferies even feels that a QCA approved unit would have to be introduced before teachers were willing to adopt it. If materials could be produced and distributed nationally, the catalyst for cross-phase liaison may be ignited. It may also be apposite to plan bridging materials as a cross-curricular venture, as has been piloted in Cheshire LEA (Thompson 2001).

In a similar theme, while broadly agreeing with the philosophy of bridging material, Jenny Moore feels that, in the long term, secondary schools have to adjust their Year 7 first term curriculum to make an effective bridge between Key Stage 2 and 3. Bridging materials would be subsumed within one overarching topic area for which a specialist timetable would be produced. This would have advantages in terms of the pupils' initial experiences of the secondary schools environment. In particular, the change from one classroom and a myriad of subjects being delivered from the same class teacher, to

distinct separate subjects and specialist teachers. An additional benefit is also perceived for secondary staff, as they would also more readily recognise the cross-curricular links at Key Stage 3 and ultimately reduce repetition of similar subject material in different subject areas.

> ‘Maybe not have the pupils in separate lessons for the first few weeks of the term and have them working on a theme that would be common to all the kids but would bring in elements of all subjects. If they had a three or four week block special timetable where they were covering a topic, looking at it from a systematic point of view, bringing in areas but giving kids the information “This is the geography element, look how it links with the science etc.”. [they could see] that history did not have to be separate from geography and science and English and maths, then they could all be linked together and then from there they went into a normal timetable but have a better idea of the links between the subjects that may gradually ease transition’ (Jenny Moore, Tillbrook Secondary School).

The model suggested by Jenny Moore is influenced, to a certain degree, by the success of the summer school at Tillbrook Technical College for Girls and the cross-curricular nature of the material taught and experienced in that week. How many secondary schools would be prepared to adopt such a radical restructuring of the start of the school year (or indeed would have the timetabling flexibility to do so) is questionable, although such a departure from normal practice has been advocated previously (Richards 2000). The suggestion does, however, provide an indication of the difference in school environments experienced between primary and secondary schools. Such a difference needs to be taken account of when attempting any form of cross-phase liaison, as Mann (1997) has illustrated. Restructuring of school timetables is just one possibility to ease the transfer into the secondary school.

If cross-phase liaison is to be improved, then such whole school issues need to be addressed. In the short term, this model could well be applicable to an induction week at the end of Year 6. At present, nearly all Year 6 pupils attend an induction day at their secondary school in the summer term prior to entry in September. In most schools, this involves little more than a tour of the school and experiencing of one or two lessons that may include geography. It is quite possible that this time needs to be reappraised and perhaps primary school pupils need to spend longer in the secondary school (up to a week) (Galton et al 1999, Murdoch 1986) which would allow for a bridging project as outlined by Jenny Moore to be undertaken, albeit in a condensed format. Once again, however, this will require not only schools, but education authorities and government to sanction this and create the opportunities for such an induction programme to take place.

INSET Opportunities

While the question remains concerning who should be the driving force behind cross-phase liaison, there would, nevertheless, appear to be an opportunity for INSET where primary and secondary staff met and were formally or informally made aware of the work taking place in their respective schools. Tom Evans of Crowhill Comprehensive School described one such previous meeting in Bridgewood LEA:

> ‘We had primary schools in for an INSET day. We had a meeting altogether and they wanted to know what they could do for us and I said specific areas they would do but the school didn’t take it forward’ (Tom Evans, Crowhill Comprehensive School).

Organised and run purposely, such INSET can have a significant role to play in enhancing cross-phase liaison. Examples from Kent illustrate the potential where primary and secondary school teachers are brought together for training days (Alcock 2001). INSET priorities tend, however, to focus on broader school issues. Tom Evans admits to being somewhat frustrated that school management issues dominate INSET activities. There are also numerous obstacles that need overcoming, not least finance and the willingness for both secondary and primary schools to devote a period of their INSET time to improving links in a foundation subject.

A further problem is that the potentially the prime provider of the INSET, the LEA, have to wait for their services to be bought in by schools. In a survey of 73 LEAs, Mann (1997) reported that the support structures for cross-phase liaison in general were funded by only a minority of LEAs, and that teachers themselves expressed concern regarding the reduction or in many cases non-availability of input from LEA staff on issues of continuity and progression across Key Stage 2 and 3.

Williams and Howley (1989) and Smyth (1993) concluded that for improved links between primary and secondary schools in geography that time and finance would need to be made available to enable meetings and other joint INSET activities to take place. Sadly, the same conclusion is arrived at today.

Responsibility for Initiating and Coordinating Cross-Phase Liaison

Primary school teachers interviewed, strongly indicated that they felt secondary school geography departments needed to be responsible for initiating cross-phase liaison activities. While there is obvious enthusiasm for at least certain cross-phase activities, there is a distinct reluctance on the part of secondary school heads of geography to assume the leading role in developing improved links, despite the assertion by Jones (1999) that this is essential. Indeed some, such as Chris Hall, believe the responsibility should be centralised with one coordinator:

> 'I think you have to have someone appointed as a coordinator who will take on geography along with other subjects. Someone who visits primary schools quite regularly to find out what is going on, gives talks, invites them to school and so on. I think it is that sort of person's job, not the head of geography because we've got so many things that we have to prepare and feeder schools have other priorities at the end of Key Stage 2 rather than trying to call a meeting just for geography teachers' (Chris Hall, Honeyhill Secondary School).

Some teachers feel that the LEA needs to be involved for cross-phase to gain credence. Doyle and Herrington (1998), for example, call for the establishment of clear LEA policies and working parties to assist primary – secondary transfer. Yet, the financial implications of this once again provide a disincentive for involvement:

> 'LEAs are in the best position to promote cross-phase liaison but of course, from the LEA point of view I would say "great, we'd love to do that" but where are the resources coming from to support it. So whereas we can to some extent circulate these offers of good practice, unless schools specifically ask for us to work on it with them, we are not in a good position to do much' (Matthew Steele, LEA Geography Advisor for Charwell).

Certainly, Jenny Moore feels that a head of department would not be able to engage in cross-phase liaison by his or herself:

> 'It would be difficult for a head of department to kick-start that on their own within a school. I mean if you could get a core group together with the head of Year 7 and a few core subject teachers – English, maths, science, humanities, you could get it up and running' (Jenny Moore, Tillbrook Secondary School).

It is somewhat dichotomous that secondary school geography teachers are desirous of much closer links, certainly in principle, yet are wary of direct involvement. Currently, a large number of secondary schools have teachers appointed with specific responsibility to liase with their feeder primary schools. While in general terms, such teachers are responsible for all aspects of transfer and transition between Key Stage 2 and 3, in reality this often focuses on English, maths and science and pastoral issues surrounding individual pupils. Crowhill Comprehensive School is a typical example:

> 'Well the real liaison that takes place basically is that the head of Year 7 will visit all the primary schools along with the head of pastoral care. They will process all the children who come into the school. Obviously they will get written information passed onto to them, they go to the schools, they talk to the teachers so they get themselves known who they are' (Tom Evans, Crowhill Comprehensive School).

It is, therefore, difficult to perceive a situation where improved links, let alone new initiatives, in geography, would take place between primary and secondary schools if the task was given over to one or two general coordinators. There also appears to be a misapprehension that initiating cross-phase liaison involves coordinating meetings. Given the reluctance and reservations expressed regarding this type of cross-phase liaison it is perhaps not surprising that heads of geography are wary of suggesting they take

responsibility for overall coordination. There are, however, a myriad of other activities, many of which have received support from both primary and secondary teachers and such could be developed further. It would, therefore, be appropriate to conclude that perceptions are dominating thought processes and that if cross-phase liaison is to become a reality, then heads of geography departments are going to need to take a much more prominent role, a conclusion that supports Jones' (1999) findings. Primary schools are desirous of the input from secondary colleagues but while this is made through a general coordinator it is likely to be diluted at best and non-existent at worst.

Conclusion

Cross-phase liaison between Key Stages 2 and 3 is exceptionally limited throughout the region under study. While there are obvious geographic difficulties, including the large number of schools within the Greendale and Charwell LEAs and as a consequence the large number of feeder schools for each secondary school, little attempt has been made to foster improved links between primary and secondary schools in geography. This situation is not unique. In previously documented cross-phase liaison activities (Jones 1999, Smyth 1993, Williams 1997, Wood 2001), liaison took place in small isolated clusters, sometimes of just two schools, concurring with Doyle and Herrington's (1998) view that cross-phase activities should not be established with the intention of including all feeder schools.

While all the examples of cross-phase liaison cited can be considered examples of good practice that could be modelled or replicated elsewhere, they remain isolated examples. If

continuity and progression are to be enhanced, then there is a need for a more coordinated approach to cross-phase liaison. At present, however, any attempts at cross-phase liaison are lacking the support structures necessary for their success on anything but a local level. In particular, the Midlands has seen the erosion of the very structures that would facilitate greater continuity and progression. For example, the reduced role of geography advisors, the withdrawal of support for liaison meetings by headteachers and a lack of funding for cross-phase INSET. Despite the need for such structures (temporal, administrative and financial) being recognised by Chapman (2001a, 2001b), Doyle and Herrington (1998), Smyth (1993), Williams and Howley (1989) and Williams (1997), little has been done to establish those structures. With the onset of a new professional development initiative (DfEE 2001) it is possible that finance will be given to geography coordinators and heads of geography in particular to improve links. In the interim, however, it is necessary to examine the ways in which current and potential liaison activities could best enhance continuity and progression.

While enthusiasm exists for the concept of cross-phase liaison, few geography teachers are prepared to take the initiative in developing some of the ideas that would promote closer links. This is disappointing, especially in the smaller LEAs surveyed where the geographical spread of schools is not an issue and where structures are already in place, as in the case of the Bridgewood cluster groups, to utilise for individual subject cross-phase liaison. Even in the case of schools with large numbers of feeder schools, the work done at Honeyhill with its junior school demonstrates what can be achieved with principal feeder schools. With headteachers removing their support, the importance of

secondary school geography teachers being involved in the liaison process assumes even greater importance than Jones (1999) indicated. The reluctance of secondary school geography teachers to become directly involved in coordinating cross-phase liaison in their subject is worrying, as it is difficult to manifest how greater links could be achieved unless the geography specialists are taking the lead and taking an active interest in Key Stage 2.

Ways need to be developed to enhance cross-phase liaison. In particular, using LEA advisors and promoting of cross-phase material through publications accessible to primary and secondary school geography teachers. Significantly, there are some activities that are thought of as worth developing and others, notably the transfer of records of achievement in geography, as impracticable and of limited value. There would appear to be a need to focus attention on those cross-phase activities that have the support of both primary and secondary teachers of geography and ways sought to overcome or reduce the barriers that are currently hindering development of such activities.

Most favoured among suggested liaison activities are teacher exchanges and bridging projects. For the former to be common practice, issues of time and finance have to be addressed. The purpose of such exchanges also needs to be established, with an emphasis not only on the content coverage of Key Stage 2 geography but also on the style of delivery. Educating secondary school teachers into the culture of the primary classroom and what geographical experiences pupils have already had will facilitate better planning for Key Stage 3 (Mann 1997). The nature of primary school geography at Key Stage 2, as

shown in Chapter 4, has to be accounted for at the beginning of Key Stage 3. Despite variations from school to school and the previous suspension of the statutory requirement to fulfil the geography order, pupils are still arriving in Year 7 with knowledge and skills in the subject. While secondary school teachers are planning from expectations (too low expectations in many cases) based upon their perceptions rather than knowledge of the primary classrooms, this form of cross-phase activity needs to be increased. Structures to facilitate this happening are, therefore, urgently required. The DfEE's (nowDfES's) new professional development strategy (DfEE 2001) cites the importance of learning from other teachers by observing colleagues teaching and taking part in discussions arising from what has been observed. It would, therefore, be appropriate if some of the funding allocated to this type of professional development could be used for cross-phase lesson observation. There is also scope for the DfEE's (now DfES's) teacher researcher initiatives, such as the Best Practice Research Scholarships (DfEE 2000), to be encouraged in this area. The appointment of a Continuing Professional Development Officer by the Geographical Association in 2001 may also help in providing opportunities.

Linking projects in geography also have potential in increasing continuity and progression, especially if endorsed and provided by such bodies as QCA and the Geographical Association. There exists, therefore, the potential for publication in this area, even perhaps a cross-phase text book, although geography may be competing here with other foundation subjects and the demands of similar literacy and numeracy projects. Indeed, it may be apposite to think of cross-phase liaison more broadly and

achieve greater continuity and progression through more cross-curricular initiatives such as the prolonged induction week suggested by Jenny Moore and advocated by Galton et al (1999) or the combined linking project piloted in Cheshire LEA (Thompson 2001). Geographers will need to be active in this area, even if under the auspices of foundation subjects in general, to prevent cross-phase liaison and issues of transfer and transition from primary to secondary school being dominated by the core subjects.

Many commentators, for example Morgan (1996) and Grimwade (1998) have alluded to the need to exchange information between schools in geography. This may still be valid and useful in a number of cases, although there is clearly a lot of work to be undertaken at Key Stage 2 in terms of record keeping and teacher assessment. If, however, cross-phase liaison is to have any purpose, a more practical, broader approach is required. Exemplar material from respective phases can be illustrated through publication in *Teaching Geography*, *Primary Geographer* and on the QCA website. This would allow concentration on more practical liaison initiatives. Such initiatives will require the financial, administrative and temporal structures to be provided at school, LEA and governmental level. Once such structures are provided, national as well as local initiatives can take place, and activities such as cross-phase meetings in geography will not only have the structure to occur, but might also be recognised as a necessary part of INSET. The more ambitious ideas of teacher exchange, linking projects and joint fieldwork trips may need more than just local support, but if the framework exists for this to take place, such activities can be fostered. Those involved in transfer and transition issues in the core subjects also need to be aware of the need to include foundation

subjects in their planning, especially as new initiatives to smooth transfer between primary and secondary schools are implemented. In addition, more could be made of the small number of initial teacher training institutions nationally that currently run Key Stage 2 and 3 teacher training courses with an emphasis placed upon the transition between these two phases. Elements of such courses could be developed to be a part of all teacher training courses (Chapman 2001b).

Chapter 4 highlighted the areas for focus in order to improve the teaching of geography at Key Stage 2 as a first step towards achieving better continuity and progression for pupils and thus enhancing their experience of geography. In the same way that resources are required to develop the role of geography coordinators in primary schools, and thereby reduce the variability of Key Stage 2's delivery, resources and structures are required to enhance cross-phase liaison. Without such support, examples of good geography teaching at Key Stage 2 will remain isolated in a similar way to examples of cross-phase liaison that are currently taking place. If continuity and progression between Key Stages 2 and 3 is to be improved, then Key Stage 2 cross-phase liaison needs to receive a much higher priority than it is currently being given, a change of emphasis is required, both in terms of the activities themselves and the way in which awareness of initiatives (and indeed Key Stage 2 geography) is raised.

Chapter 7

CONCLUSION

The research methods employed in this thesis enabled not only an analysis of continuity, progression and cross-phase liaison between Key Stages 2 and 3 in geography, but also provided an insight into the current state of the subject in both primary and secondary schools at a time when governmental initiatives were impacting significantly on the primary classroom. In order to be able to address the issue of continuity and progression in geography between the primary and secondary sectors, it was first necessary to understand the current extent and style of delivery of both the Key Stage 2 and Key Stage 3 curriculum, set against this rapidly changing educational environment.

Geography at Key Stage 2

The introduction of the National Curriculum has provided primary school geography with a much firmer footing in the primary school curriculum. This has reduced, to some extent, the concern expressed in 1990 by the final report of the Geography National Curriculum (DES 1990 p5) which stated 'the neglect of geography in primary schools is in our view the most serious weakness [of geographical education] and tackling this should be given a high priority'. This foothold has, however, come under pressure from demands on the primary curriculum, notably the literacy and numeracy strategies (Matthews 2000) with some indication that the suspension of the requirement to fulfil the

geography order from January 1998 to September 2000 has impacted on the geographical experience of pupils at Key Stage 2 (Ofsted 1999a, 2001b, Wood 2001). Respondents to the questionnaire survey suggested that despite these fears the Key Stage 2 geography curriculum is generally being covered in terms of content. Thus, the impact of the new initiatives and changes in the primary curriculum appear to have influenced the manner in which geography is delivered rather than the subject content being taught. The most common response to these changes is to alter the delivery of the Key Stage 2 curriculum, either through a reduction in time, thinning of content or combining geography as a topic with other subjects (Ofsted 1998a, 1999a, 2000b, 2001a, 2001c), although at the time of the survey geography was retaining its position as a separate subject in the majority of primary schools. This has led to some schools teaching geography in a superficial manner (Ofsted 1998a, 2000b) and affecting pupils' geographical knowledge (Ofsted 1999a, 2001a).

The pressures of time appear to be the most common factor influencing the extent of geography coverage. Literacy and numeracy have taken more curriculum time, which inevitably has reduced time allocated to foundation subjects. Despite this trend, many primary schools have used literacy and numeracy to promote geography. It is significant, however, that while primary schools were, in most cases, not devoting the required amounts of time to the National Curriculum in the summer of 1999, the majority were allocating the recommended time for the revised National Curriculum that was introduced in September 2000 (Grimwade 2000). Presuming that the calculations of time required to fulfil the statutory requirement for geography under this revised National

Curriculum are realistic (which will not become apparent until at least a complete Key Stage has been worked through), then it can be expected that all primary schools should fulfil the statutory requirements of the Geography National Curriculum. How this time is utilised will vary from school to school, as will the quality of the geographical education delivered. A common approach is to allocate blocks of teaching time to geography in one term rather than provide a continuous experience across the school year. As this facilitates in-depth study for at least part of a year, the approach does not attract criticism from LEA advisors interviewed, although Ofsted (2001c) suggest that a long gap between periods of study is detrimental. There is, however, real concern over the way in which work for SATs appears to dominate the latter part of Key Stage 2, especially in Year 6. Although some schools have successfully integrated a sizeable amount of geography in Year 6 (see Appendix 5, for example), many primary school pupils may have their last experience of Key Stage 2 geography before the autumn half term or even in Year 5. While SATs results remain important indicators of pupil and school performance and are published by government this situation is unlikely to improve, although the post SATs time in the latter half of the summer term is an opportunity that could be utilised for geography and other non-examinable foundation subjects (Wood 2001).

While it is possible, therefore, to cite evidence for geography at Key Stage 2 not being delivered to a satisfactory standard, and geography curriculum time being reduced, it is also possible to draw upon examples of good practice at Key Stage 2. Work undertaken by pupils (Appendix 4) and Ofsted reports (Ofsted 1997,1998a, 1999a, 1999b, 1999c,

1999d, 1999e, 2000a, 2001a) all confirm that in many primary schools, Key Stage 2 geography is not only being delivered but taught well. It is, therefore, the variability at Key Stage 2 in teaching geography from school to school (Ofsted 2001b) that requires addressing. It is also possible to conclude from the questionnaire survey that, despite the fears that geography may disappear from the primary school timetable as a result of the temporary suspension of the statutory requirement to fulfil the Order at Key Stage 2 (Walford 1998), the majority of the Key Stage 2 curriculum content was being taught. It would appear that most primary schools looked towards September 2000 and recognised the reintroduction of the statutory requirement to fulfil it, and as a consequence retained at least some geography in the curriculum. It is also likely that the work undertaken in teaching Key Stage 2 geography up to 1998 contributed to the perpetuation of the subject.

While it is possible to conclude, with some confidence, that within the study region at least, geography at Key Stage 2 will be delivered, there are a number of concerns over the way in which the Key Stage 2 curriculum will be formulated and the nature of future delivery. Of particular concern, is the design of schemes of work to deliver Key Stage 2. Throughout the early years of the National Curriculum, geography coordinators in primary schools have had the responsibility for devising schemes of work based upon the geography order. As such, the ability with which the geography coordinator could interpret the requirements of the National Curriculum determined to a large extent the success of delivering the subject at key stage 2 (Ofsted 1993, 1995a, 2000a, 2001a, Morgan 1995, Waters 1998). Where subject expertise is secure, the geography being taught is of the highest quality and frequently extends beyond the confines of Key Stage

2 (Ofsted 1999c, 1999e, 2000b). In other schools, the National Curriculum is seen as defining the parameters of study and geography coordinators who remain unsure or less secure with its interpretation struggle to match the extent or quality of their peers (Ofsted 2000a, 2001a).

While this raises questions over the subject expertise of some coordinators, there are, nevertheless, numerous resources which could be utilised to fulfil the task of interpreting the geography order. One such source, for example, would be the Geographical Association, especially through its publications most notable of which being *Primary Geographer*. In the LEAs under study, the advisory service also played a major role in working with primary schools to establish schemes of work based upon LEA produced resource material. This level of involvement is manifest in many primary school respondents' schemes of work today. Additional sources of support include QCA, the Royal Geographical Society/Institute of British Geographers and research groups such as the Register for Primary Research.

Curriculum Support for Geography Coordinators

Yet the introduction of the revised National Curriculum in September 2000 has not been accompanied by the same level of support previously offered to primary schools. Foremost among the reasons for this has been the changing financial arrangements for LEA advisory support and LEA provided INSET. As primary schools now have to decide what support is required in which curriculum areas, geography, along with other

foundation subjects, is being deemed a low priority in most schools. As a consequence, geography coordinators will be required to provide their own individual interpretations in devising schemes of work and have to work without the strong support of the LEA, unless the geography coordinator is able to persuade the management of the primary school for the need for LEA support. If a level of support equivalent to that which has been in existence in the past is to remain, then a dedicated, protected percentage of the finance available for curriculum support will need to be made available if not for geography, at least for foundation subjects in general.

Finance also influences other aspects of the primary geography curriculum both directly and indirectly. Resourcing of geography teaching will be dependent upon the money available, and notably, many schools surveyed indicated a strong influence on the design of their curriculum was the resources currently utilised. More indirectly, the amount of INSET undertaken specifically in geography will also be dependent upon where schools perceive their training needs. While the core subjects will once again take priority, geography is left competing for any money available for the foundation subjects. Despite the importance of geography INSET for subject coordinators highlighted by Ofsted (2000a, 2001b) Smith (1997a) Waters (1998) and Williams and Howley (1989), little has been achieved in the lifetime of the National Curriculum. Ways of making INSET more accessible to geography coordinators may be required, perhaps even subsuming geography training within a clutch of foundation subjects, as many geography coordinators also have responsibility for other curriculum areas. The timing of INSET also needs very careful consideration. A frequently cited reason for lack of INSET

training is the cost incurred to the school for loss of a member of staff for a day. Thus any INSET provider needs to look closely at the timings of such training or indeed a broader re-examination is required by primary schools (and even government) on the number and usage of INSET training days, with once again the possibility of guaranteed INSET time for foundation subjects. The difficulties of securing finance for the professional development of geography coordinators may be eased with the government's new continuing professional development programme (DfEE 2001). While still in its early stages of formulation, this strategy for professional development has indicated a wider distribution of funding. This should enable more INSET to take place and may even see LEA advisors becoming more active in their curriculum support. In order to secure such funding, geography may well need to combine with other foundation subjects (Chapman 2001a). Nevertheless, the DfES have provided a real opportunity for improved INSET and professional training of geography coordinators that organisations such as the Geographical Association and other INSET providers need not only to be aware of, but also could exploit.

QCA Schemes of Work at Key Stage 2

Perhaps the most likely influence on primary school curriculum design over the next few years will be the QCA schemes of work (QCA 1998b). With support from other areas likely to be diminished, usage of the QCA interpretations of Key Stage 2 is expected to be widespread, especially given encouragement by Ofsted (Ofsted 2000a, 2001a). There remain, however, substantial variations over the way in which these schemes are being

utilised by different primary schools. Some have adopted the schemes almost wholesale as their geography curriculum (despite the protestations of LEA advisors interviewed). Others have been more selective and used them as additional resources to input into existing schemes of work. Nevertheless, by publishing such documents, QCA have provided primary schools with the opportunity to standardise, to a degree, the delivery of the geography curriculum. Unfortunately, too many primary schools appear to be seeing the exemplar material as "the curriculum" without further adaptation to local circumstances (Rawling 2000a, Westaway 2001). Much more training and support will be required to ensure that geography coordinators use the schemes to enhance, rather than replace, their existing geography curriculum. Ofsted (2000a, 2001b) have highlighted the importance of detailed schemes of work leading to high quality teaching. It is, therefore, essential, that geography coordinators receive the necessary training to interpret and construct such a detailed scheme of work (Grimwade 1998, Rawling 2000a), even if based entirely on the exemplar material from QCA.

Despite the many uncertainties over the future development of geography at Key Stage 2, Year 6 pupils are usually transferring to secondary school with knowledge, understanding and skills in the subject as good (if not better) than any of their predecessors. Failure to recognise the work done at Key Stage 2 is leading to lower standards at Key Stage 3 (Ofsted 1999a, 2001b, Wood 2001). Secondary school teachers, however, seem unwilling or unable to recognise this fact, a situation that existed prior to the introduction of the National Curriculum (Williams and Howley 1989). Given that very few secondary schools made any adjustment at all to their delivery at geography at Key Stage 3

following the suspension of the statutory requirements to fulfil Key Stage 2 in January 1998, it would seem apposite to conclude that the assumptions and prejudices that cause secondary school teachers to believe pupils have not experienced much or, indeed, any geography and a fresh start is required in Year 7 were firmly rooted prior to this time. Indeed, despite the evidence of the successful delivery of Key Stage 2 and the firm rebuttal of viewpoints that assume no prior geographical knowledge by LEA advisors interviewed and various commentators (Carter 1999a, Grimwade 1998, Ofsted 2001b), Key Stage 3 teachers do not appear aware of what is happening in the primary classroom. Such standpoints bring, understandably, derisory and deflated responses from primary schools.

Geography at Key Stage 3

Key Stage 3 is, of course, distinct from Key Stage 2. Geography is delivered almost without exception as a separate subject. It is taught, for the most part, by subject specialists, and has largely retained its time allocation as revisions to the National Curriculum have taken place. The geography order at Key Stage 3 is being delivered and given the more specialist training of heads of geography or Key Stage 3 coordinators for geography, the factors influencing curriculum design are more varied. Resource availability, fieldwork, and the desire to cover ‘good geography’ were all cited. The impact of the QCA schemes of work were notably less in comparison to Key Stage 2, with these resources being used to supplement existing interpretations of the National Curriculum. The pressures of changing examination syllabuses at GCSE and AS/A level

might well stagnate progress or deflect attention from developing the Key Stage 3 curriculum (Westaway 2001). In addition, new subjects and government initiatives (especially Citizenship, literacy and numeracy) will add new curriculum pressures to schools at Key Stage 3, which could adversely affect geography's status (Rawling 2000a), as could government proposals for changing Key Stage 3 (Grimwade 2001b, Walford 2001).

Geography's Place in the Curriculum

Rawling (2001) identifies three main stages of curriculum policy making since the conceptualisation of the Geography National Curriculum. The first of these stages, from 1988-1993, 'was characterised by strong political control of the curriculum content' (Rawling 2001 p 154). This was followed by a phase in which teachers, subject associations and professional educators were far more involved in discussions regarding the shaping and implementing of the National Curriculum. In this stage, from 1993-1997, SCAA (and later QCA) developed subject support strategies which significantly enhanced relationships between government, the Geographical Association and the teaching community generally. Through subject specific publications, for example 'Expectations in Geography at Key Stages 1 and 2' (QCA 1997) as well as more general publications in which geography was cited, for example on the use of language and information technology) geography's profile improved as did the overall standard of geography teaching (Rawling 2001).

This more open, productive phase was reversed in 1997 with a change of government. Representing Rawling's (2001) third stage of curriculum policy making, the time from 1997 to the present has been dominated by policies of more control and less ideology. Seen as a return to the more right wing policies of the first phase of curriculum policy making, the educational policies of the Labour Government since taking office in 1997 have been characterised by target setting, performance indicators and curriculum strategies. Geography has gained little from these approaches. The effect of literacy and numeracy strategies on primary school geography has been evident in this research. The Labour Government's new initiatives of citizenship, sustainable development and creative and cultural education have raised a number of concerns at Key Stage 3 where time for such developments may well be taken from non-core subjects.

In a perhaps more worrying move, the formation of the Standards and Effectiveness Unit (SEU) has created a rival to QCA upon which greater government reliance is being placed. The SEU not only advises government but now has responsibility for implementing new strategies. Duplication of workload and responsibility has taken place without a redefinition of QCA's curriculum role. The end result being a restricted approach to curriculum policy management (Rawling 2001).

In the current political climate it is possible to conclude that geography's status as a curriculum subject is under threat once more. The severity of that threat may be even greater than in the years preceding the introduction of the National Curriculum (Brown

2001). Rawling (2001) summarised current political thinking on curriculum policy in the following way:

> 'The Labour Government's approach promotes a strange mixture of autonomy and control. It is pragmatic and willing initially to incorporate ideas from different perspectives but, having decided on policy, then detailed implementation is set within a directive framework of targets and strategies. Thus the work of the SEU now focuses almost exclusively on specific strategies such as school improvement and raising standards, using the government's own interpretation of how this is to be pursued and, significantly for geography, of which subjects will be included' (Rawling 2001 p151).

By placing the findings of this research in the context of Rawling's (2000a) three questions cited in Chapter 4, there are clearly concerns for geography as a subject in 2002. Teachers do have access to a curriculum framework that can be developed into good quality geography teaching; examples of good practice cited in Chapter 4 manifest this. Rawling (2001 p146) has described the Geography National Curriculum of 2000 as the best balance of 'education-focused, society-focused and subject-focused emphases' that has existed for twenty years. Moreover, the 'minimal format means that there is freedom of interpretation' (Rawling 2001 p146). Yet, the framework is complicated and there remain a variety of ways in which the geography order is interpreted and delivered. While this can be perceived as a strength, it is also a weakness. Indeed as Rawling (2001) comments, 'whether teachers will be able or willing to implement this newly found freedom is less clear' (Rawling 2001 p146). More guidance and training is required for teachers on how to devise schemes of work and use the available resources, such as QCA schemes of work to deliver good quality teaching and learning. With regard to the second question, it is apparent that teachers do not see themselves as part of a wider geographical community. More commonly, primary and secondary school geography

teachers consider themselves and their subject quite distinct from each other. The place of geography in the national education system (Rawling's third question) is far from secure at Key Stage 2 and possibly being threatened at Key Stage 3. As Rawling (2001) suggests geography is always one of the first subjects to suffer time or status reductions when new government initiatives (such as the literacy and numeracy strategies) are introduced.

What is geography's future as a curriculum subject? Within the subject there is an urgent need for curriculum support to develop, enhance and implement teaching strategies that will deliver successful geography teaching. This includes not only time allocation for teaching, but also crucial areas such as professional development, INSET provision and resourcing which have all suffered, especially at Key Stage 2, in recent years. The geographical community needs to be united in its efforts to preserve and enhance geography in schools, which necessitates considering the geography curriculum as a whole, not in separate phases. In so doing Rawling's (2000a) question of whether geography teachers perceive themselves as being part of a wider geographical community will be addressed.

At the national level, however, geography will need to fight once more for its status as a separate subject worthy of inclusion in a National Curriculum. Rawling (2001) makes the following conclusion:

> 'Geography's future status and the contribution it will be allowed to make to the curriculum will depend, as for other subjects, on how it is seen to address the newer policy initiatives emerging since 1997. These include raising literacy and numeracy standards, developing thinking skills, promoting citizenship and sustainable

development education and contributing to assessment for learning' (Rawling 2001 p149).

Geography is well placed to lead in the current pedagogic debates as well as incorporate other policy initiatives into its curriculum such as literacy and citizenship (Smythe 2001). Indeed, much work has already been undertaken (for example Leat 1998, Owen 2001, Rider 2001, Thompson and Krause 2001, Thompson et al 2001). To date, however, government policy has tended to favour a separate subject format to these initiatives, instead of considering the contribution that subjects, like geography, could make to new strategies. The limited involvement of the QCA subject team for geography in assessing how such initiatives could be integrated into the Geography National Curriculum confirms this philosophy (Rawling 2001). Geographers will need to be seen as taking a lead in the implementation of such strategies in order to once again raise the subject's profile and stress its relevance to wider educational goals. In this way, geography may retain a foothold in the National Curriculum.

Continuity and Progression Within Key Stages 2 and 3

Examples of schemes of work and statements of curriculum design received from primary schools and reviewed in Chapter 4, suggest that they have included continuity and progression in the design of their schemes of work (Appendix 5). Such continuity and progression could be succinctly described as revisiting of skills throughout the key stage, an increasing widening of place knowledge and the coverage of one theme per annum. Considered in these terms, the experiences of geography that pupils receive in

each successive year in primary school do, for the most part, build upon rather than just repeat work undertaken in earlier years, although Ofsted evidence tends to be mixed on the success of this approach (Ofsted 1999b, 1999c, 2001b).

As with Key Stage 2, continuity and progression within Key Stage 3 took the form of revisiting skills and a broadening of place knowledge, although individual themes were not revisited. Given the content that needs to be covered in Key Stage 3, there appears to be little likelihood of this situation changing in the immediate future.

Attempts at integrating continuity and progression into both key phases have, for the most part, been dominated by content considerations. While the sequence of content is important, it is only one aspect of continuity and progression. Very little attention appears to have been paid to pedagogy. Setting tasks that take account of previous learning and build upon such learning while providing new challenges is central to the concept of progression. Numerous guidelines have been published to help teachers in this respect and were outlined in Chapter 2. If continuity and progression within Key Stages 2 and 3 is to be enhanced, then much greater attention needs to be devoted to the ways in which pupils learn. The ‘thinking skills’ approach (Leat 1998, Higgins 2001) may be one vehicle for enhancing progression which might well serve as a model for how to establish a series of learning tasks that consolidate and extend individual pupil learning within geography. Put simply, greater focus on ‘how’ the subject is taught not ‘what’ is taught.

Continuity and Progression Between Key Stages 2 and 3

If, therefore, both the primary and secondary sectors are delivering the requirements of the National Curriculum, achieving at least a modicum of continuity within Key Stage 2 and Key Stage 3, continuity and progression should be evident as pupils transfer from primary to secondary schools (Bennetts 1995a, Binns 1996, Blatch 1993, Clarke 1992, Daugherty 1996, Herrington 1994, Rawling 1995, Williams 1997). Unfortunately, at present, there is little or no continuity and progression in the experience of the Year 6 geographer as he or she enters Year 7. The schism between Key Stage 2 and Key Stage 3 remains wide. Pupils entering Year 7 frequently participate in a course that involves repeating (not building upon) skills already covered at primary school. Even as they progress through Year 7 and into Years 8 and 9, the amount of overlap between material taught and Key Stage 2 and Key Stage 3 is vast. Overlap occurs both through primary schools teaching material in the Key Stage 3 curriculum and secondary schools beginning with material at too low a level. This questions the nature of the Geography National Curriculum itself and whether it has provided a continuum of curricula experience.

While secondary schools could reasonably cite this incursion as not being their fault (and perhaps primary schools should look for ways of extending material within the Key Stage 2 syllabus and not just automatically progressing to Key Stage 3) the more poignant observation is that neither sector really knows or understands the way in which the subject they have in common is delivered in their respective environments. In itself, repetition of content concurs with the principles of Bruner's (1960) spiral curriculum (see

Chapter 2). What should not happen, however, is repetition of the learning experience. Attempts at ensuring continuity and progression in geography as pupils transfer from their primary to secondary school are limited, in most cases, to the bare acknowledgement that pupils may have covered the material before. Surprisingly, the repetition of work in Key Stage 3 is not perceived as disadvantageous to the pupils by either primary or secondary teachers, although primary school teachers do express concern over the lack of challenge and extension in geography at Key Stage 3, a sentiment supported by Ofsted findings (Ofsted 1999a).

Pupils interviewed for this research do not perceive a drop in the standards or nature of geography studied at Key Stage 3. Indeed, the increasing depth of study and detail required by secondary school geography teachers, leads pupils to conclude that while some topics are repeated, they are learning new subject material and appreciate starting from a point where some knowledge is already known. While some linkages can be discerned from primary school work, most do not necessarily appreciate that the geography studied at Key Stage 2 links, or is supposed to link, to their Key Stage 3 work. Without deliberately setting out to do so, it would appear that many pupils' experiences are of a curriculum that does indeed progress in terms of complexity of ideas and depth of understanding. There remain, however, concerns over the quality of geography being delivered at Key Stage 3, especially as many pupils interviewed expressed their desire to be challenged, experience new topics and forms of learning while continuing with the aspect of geography they enjoyed most at primary school – fieldwork. In these areas, geography does appear to be failing pupils and while content previously studied being

repeated may be less of an issue in pupils' eyes, the nature of delivery and consequent geographical experiences are very important, highlighting the need for more knowledge in this aspect of curricular continuity.

Ways Forward – Improving Continuity and Progression

In order to improve the current level of continuity and progression between the primary and secondary sector, there is an urgent need in particular, to educate secondary school teachers as to the high quality of geography generally being delivered at Key Stage 2 (Marsden 1997). This task requires the breaking down of negative assumptions whose roots are embedded, in some cases, before the introduction of the National Curriculum (Williams and Howley 1989). Many geography teachers at Key Stage 3 contend that the variety of experiences of Year 7 pupils are too great to assume a common baseline for starting the Key Stage 3 curriculum. These observations gain support from evidence suggesting that the geographical experience of some pupils is far greater than others (Ofsted 1999b, 2001b). Evidence from Ofsted and case study schools in Chapter 5, however, shows that Key Stage 2 is being delivered and examples of good geography teaching can be found, thus illustrating that for a number of pupils their geographical experiences at primary school will have been comparatively very rich indeed. In many instances, secondary school teachers are ignoring the Key Stage 2 curriculum, as such refuting the comments of Carter (1999a) regarding the unacceptability of assuming nothing and providing further evidence to support Ofsted's conclusions (1999a, 2001b) of the need for teachers of geography at Key Stage 3 to improve their knowledge of primary

school pupils' experience in geography. As with continuity and progression within the key stages, there is an urgent need to refocus attention upon the methods of learning and trying to ensure that, regardless of content, secondary school teachers are setting learning tasks that build upon a pupil's previous experience and challenge their thinking. What is of particular issue is not the repeating of skills and themes already experienced at primary school, but the way in which those skills and themes are delivered at Key Stage 3. At present, evidence from LEA advisors interviewed and Ofsted (Ofsted 1999a) suggest Key Stage 3 material is being delivered in a similar, if not the same format, as at Key Stage 2. As a consequence, Year 7 pupils are not being challenged or stretched as they might be at the beginning of Key Stage 3, as pupils themselves say they wish to be (Ofsted 1998a, 1999b, 2000b, 2001b).

In order for continuity and progression to be improved between primary and secondary schools, it is, therefore, necessary to consider ways in which greater cross-phase liaison can be achieved in geography and in so doing not only lead to secondary teachers becoming far more informed about the Key Stage 2 curriculum.

Cross-Phase Liaison

Cross-phase liaison in geography has been postulated as a necessary part of curriculum development by many commentators (Bailey 1978, Carter 1999a, Chapman 2001a, 2001b, Clarke 1992, Grimwade 1995, 1998, Jones 1999, Morgan 1996, Ofsted 1999a, Steed and Sudworth 1985, Smith 1995, Smyth 1993, Williams 1997, Williams and

Howley 1989, Wood 2001), with various cross-phase activities being suggested and actual examples described, as detailed in Chapter 2. Despite these guidelines, many of these activities are deemed impracticable by both primary and secondary school teachers and if greater cross-phase liaison is to occur, there needs to be a reappraisal of which activities will receive the greatest support and prove feasible to implement with some success.

To date, attempts at achieving continuity and progression between Key Stage 2 and 3 have been viewed as limited due to repetition of work and a lack of understanding or belief in what primary school pupils have experienced in geography. The assumptions currently made by secondary school teachers result in overlap and repetition of work, as illustrated in Tables 5.6 and 5.7 in Chapter 5. While it would be hoped that secondary school teachers might recognise that these assumptions lead to repetition, the immediate future sees no likelihood of such assumptions being changed. There is, however, much scope for educating and informing secondary school staff about the culture of the primary classroom, and the way in which geography is delivered.

The little cross-phase liaison that is currently practiced in the LEAs under study is poor in comparison to examples cited from other LEAs in Chapter 2. Perhaps, more significantly, attempts at cross-phase liaison appear to be declining in the study area with new initiatives being exceptionally limited. In order to understand the reason behind this trend in geography, a wider educational background has to be considered. The element of parental choice for secondary schools has most certainly increased both the number of

feeder primary schools for secondary schools and the number of secondary schools that primary pupils transfer to. It is, therefore, not surprising, that a common inhibition to cross-phase links cited by both primary and secondary schools is that of numbers of schools, concurring with the findings of Doyle and Herrington (1998) and Steed and Sudworth (1985). There would still seem to be scope, however, for linkage, especially where a cluster of principal feeder primary schools can be identified. Such clusters have existed throughout Bridgewood LEA, and have resulted in good cross-phase liaison in geography. Yet even here the well-established links are being threatened. In reviewing the clusters and cross-phase linking in Hampshire and Buckinghamshire LEAs, Jones (1999) and Smyth (1993) cited the support of headteachers as crucial in achieving greater cooperation. In Bridgewood, the series of productive meetings between geography coordinators and the head of department in the secondary school have evaporated due to the lack of support from headteachers. Other crucial factors identified by Jones (1999) such as meetings taking place during the school day and the involvement of secondary school teachers also have not been replicated in the Midlands.

Time for Cross-Phase Liaison

At present, there is no designated time for geography cross-phase liaison. Indeed, there is much sceptism over the value of meetings and the support such meetings would attract. The logistical implications of gathering a number of geography coordinators together does provide a major obstacle to developing this type of activity. If, however, guaranteed INSET time could be provided dedicated to cross-phase meetings, then this would be a

more practical suggestion. The lack of non-contact time for primary school teachers and the reluctance of those teachers and/or their headteachers to attend twilight hours meetings, suggests that for any exchanges to take place verbally in a meeting format, either INSET time has to be guaranteed or a way found of building in some non-contact time for staff. As with training on the geography curriculum itself, this may well have to be subsumed under the broader umbrella of foundation subjects, and once again, the costs incurred (for staff cover and the cost of courses attended) would need to be drawn from funds protected for use of such subjects. Such time could also be fruitfully used for teacher visits to primary and secondary classrooms. The DfES's continuing professional strategy announced in March 2001 (DfEE 2001) may provide the scaffolding for this to be achieved. It is noteworthy that Davidson et al (1996) attributed a large degree of the success of their cross-phase 'Differentiation Project' to the time provided for liaison by the respective schools involved.

Exchange of Pupil Records and Schemes of Work

Another activity that receives only luke warm support is the exchange of pupil records. The nature of pupil records in geography varies extensively, indeed the practice of keeping records at all in geography is not necessarily common place in a large number of primary schools. Even where records are routinely transferred with pupils, little attention is paid to them by secondary teachers. With Ofsted (2000a) highlighting the inadequacy of teacher assessments in many schools, secondary school teachers are going to be reluctant to use these as part of their planning for Key Stage 3. Thus, for the immediate

future, or until a consistency of approach to (or compulsion to undertake) record keeping in geography at Key Stage 2 is introduced, this form of cross-phase activity would seem inappropriate, unless taking place as part of an established cluster group of schools.

Exchange of schemes of work, or brief records of what a primary school has covered at Key Stage 2 receives greater support. The notion of a common scheme of work (although not its intention) as provided by QCA has elicited much interest from secondary school teachers. The problems associated with adoption of this scheme by primary schools have already been commented upon in Chapter 4, yet this move towards a more readily accessible scheme of work may encourage more secondary school teachers to look more carefully at the Key Stage 2 curriculum. Indeed, Westaway (2001) perceives the schemes of work as the most workable short-term solution to improving continuity and progression between Key Stages 2 and 3:

> 'If primary schools do adopt the QCA scheme of work (whatever we might think about this from other perspectives), perhaps the geographical experience of eleven year olds will become more similar, which may make it easier for secondary schools to begin to make assumptions about the geography curriculum experience' (Westaway 2001, p2).

The likelihood remains, however, that such teachers will not remain confident in making assumptions regarding work covered until they can be certain that each feeder primary school is following and delivering a common scheme of work at Key Stage 2 and to a particular standard. The schemes, while highlighting content, do not provide an insight into the learning environment of the primary classroom.

Importance of Structures for Cross-Phase Liaison

If cross-phase liaison is to be more effective in achieving continuity and progression between Key Stages 2 and 3, structures have to be put in place to allow it to happen. The examples quoted from case study schools in Chapter 6 provide interesting models, but for replication on a wider scale, support mechanisms need to be established. This would include not only financial support for liaison activities, but also clear structures set up at LEA and school level that foster and facilitate regular cross-phase activity such as teacher and information exchanges and more ambitious initiatives, for example, linking projects. Such mechanisms were deemed necessary by Smyth (1993), Williams (1997) and Williams and Howley (1989). It is possible, that the DfES will provide some funding and time identified as necessary by these commentators, through the new continuing professional development strategy (DfEE 2001). Yet, while it is important that geographical organisations and schools utilise this for cross-phase liaison activities, it is also necessary to reappraise the way in which cross-phase liaison is approached. This new approach will need to focus far less on exchange of information and much more on practical ways in which an understanding of the way pupils are taught in respective phases of their education. In addition, a much broader perspective is required in highlighting cross-phase liaison activities.

Teacher Exchanges

Ideally, teacher visits would involve much more than just lesson observation, but even more widespread lesson observation would represent an improvement on the current situation. It could also be possible to timetable some primary and secondary INSET days to allow at least part of those days to be spent in respective working school environments. Such visits may dispel some of the myths and assumptions that secondary school geography teachers are making regarding work undertaken at Key Stage 2.

Opportunities for teacher exchanges may also encourage viewing of primary school work in geography, which would provide secondary school teachers with a background understanding of the work undertaken and the standards achieved across a wide ability range. Indeed, such exchanges of work could take place as a matter of course. Even where there are no established clusters of schools this can be undertaken with a certain number of feeder primary schools, perhaps in close geographical proximity to the secondary school. The outcome of such activities would not necessarily be to change what is being taught at Key Stage 3, but to increase awareness of the levels of pupils' skills, knowledge and understanding so that appropriately different and challenging work could be set in Year 7 and beyond.

Publications to Enhance Cross-Phase Liaison

Awareness of work undertaken and standards achieved at both Key Stage 2 and Key Stage 3 could also be furthered through publication, especially in the two major teaching journals of *Teaching Geography* and *Primary Geographer*. Through these mediums, both primary and secondary teachers could be made aware of geography in the key stage above and below respectively. At present, there is little by way of published cross-phase material. Indeed Bowles (2001) has commented upon the polarization of these two journals with the exception of only a small number of articles, concentrating exclusively on their respective primary/secondary phases. Not all teachers, however, read these journals and it may be appropriate for a singular publication from the Geographical Association, or QCA to be distributed to all schools to achieve this purpose. The new QCA website for publication of exemplar pupil materials (Rawling et al 2001) may also fulfil this purpose. In particular, awareness could be raised by publication of Key Stage 2 schemes of work for the readership of secondary schools and with commentary on how these are delivered and exemplar material of pupils' work. It may be that further research on the design of the primary school curriculum and how the QCA schemes of work are being utilised, could lead to a template that would inform and help secondary school geography teachers to understand a typical Key Stage 2 course. It would also, of course, provide further help to primary school teachers in their formulating of a Key Stage 2 curriculum. While some work has already been undertaken in this area (Carter 1999b), it has been directed towards Key Stage 2 teachers and not used as a tool for improving curriculum design at Key Stage 3.

Linking Projects

Closely related to such initiatives is the idea of a linking or bridging project, as suggested by Grimwade (1998) and illustrated through the Lincolnshire link project (Wood 2001) described in Chapter 2. If such a bridging project were to be written and adopted, then not only would secondary school staff be able to see the work undertaken at primary school level, but also directly follow on with the material at the beginning of Year 7. Analysis of the structure of the Key Stage 3 curriculum in Chapter 4 from the questionnaire survey revealed that the majority of secondary schools begin with a skills based course and many adopt certain themes such as settlement for the remainder of Year 7. Thus it would be possible to create a skills based, settlement themed linking project that could be integrated into the Year 7 curriculum without altering radically the philosophy of the secondary school geography departments' curriculum design.

Primary schools endorse the concept of a bridging project in geography with enthusiasm, especially looking for material to fill the post SATs time in Year 6. There are, however, reservations even here. Notably, primary school staff would want to be confident that such a project had the backing of secondary school geography departments. To this end, any such project may have to be produced through the auspices of QCA, with the expectation that it would receive high take up. Only if a high take up occurred could such a project be deemed feasible. There are also issues regarding how geographical a bridging project could be at primary level. The enthusiasm for such a project at present comes from the lack of any such material in the foundation subjects. If bridging projects were

already in existence for history and RE for example, it is unlikely that primary school staff would be so readily amenable to the introduction of a geography one as well. To a certain extent there is an opportunity for geography to capitalise on a perceived need, although in overall curriculum terms, a bridging project that combined elements of literacy, numeracy, geography, history and possibly other subjects as well is more likely to gain acceptance and have a longer term use, such as a pilot project undertaken in Cheshire LEA during the summer and autumn terms of 2001(Thompson 2001). LEA advisors such as Stephen Drew and Tim Jefferies also perceive stronger cross-phase links arising out of the numeracy and especially literacy initiatives at Key Stage 3, introduced fully in September 2001. In following the approach of those primary schools who have embodied literacy and numeracy in the geography curriculum, secondary school geography departments could provide a similar vehicle for literacy and numeracy at Key Stage 3. Some projects have already been piloted successfully (Owen 2001, Thompson and Krause 2001) and guidance provided on how this might be achieved (Rider 2001, Thompson et al 2001). If literacy and numeracy were to become integral to the geography curriculum at Key Stage 3 then geographers would have more involvement in these core areas and almost by default have to practice closer links with primary schools.

Summer Schools

In a similar way, the concept of a summer school could well provide a smoother transition between primary and secondary schools. Again, however, such a venture would need to integrate both numeracy and literacy work and possibly other foundation subjects

in addition to geography. While this is quite possible, summer schools at present only cater for a small proportion of the Year 7 intake. If ways could be found to integrate this project into the end of the summer term, with the entire Year 7 intake, the potential for improving continuity and progression is great. The current arrangements in most schools of an induction day where some geography may be taught makes little impact on improving continuity in curriculum terms. The summer school concept also has the advantage of negating comments regarding the number of feeder schools as the new intake would be attending. Further investigation, therefore, is needed into the possibility of extending the induction programme to a whole week, as suggested by Galton et al (1999). This would allow the benefits of a summer school to be extended to all pupils and allow geography to be delivered as part of that programme. While the amount of geography delivered will still be small within such a programme, if the design of the induction week is more akin to that of a summer school and not formalised subject lessons, the potential to integrate geography with other aspects of the curriculum is heightened and starting point for Year 7 work is provided. With both summer schools and extended induction periods, however, issues such as cost, staffing, and the priority given to certain curriculum subjects all need to be overcome.

Responsibility for Liaison

At present, for many secondary schools, liaison is seen as the responsibility of a small number of people visiting feeder primary schools representing all subjects, although most often, this is restricted to English mathematics and science. If liaison is to be improved in

geography, then it is, as Jones (1999) identified, the head of department in secondary schools that need to take the initiative. The current primary school climate abounds with mistrust regarding assumptions that secondary school teachers make. Secondary school teachers themselves are quick to identify reasons for poor cross-phase liaison, but make little effort to remedy the situation. Too often cross-phase is interpreted by secondary school teachers as the need to find out what is being taught in terms of precise content. In practice this can be exceptionally difficult, although not impossible, and thus a far more productive use of time would be to visit primary schools to understand the culture of the primary classroom, the ways of learning, the standards of work and, as almost a secondary factor, what content is being delivered. Focusing on this aspect of cross-phase liaison would also be concurrent with pupils' perceptions that content repeated is done in more depth and thus avoids any dissatisfaction, but the nature of the delivery of the subject needs attention. Primary school teachers will only respond if there is a positive lead from their secondary counterparts. This is even more important now, given the reduced role that the LEA advisory service can play in this area due to financing arrangements for their services. It is ironic that the best placed individuals to encourage cross-phase liaison activities are rapidly losing their ability to influence such work. As well as secondary school teachers, other institutions need to take a more pro-active role in encouraging cross-phase liaison. The Geographical Association both at national, regional and branch level could provide the catalyst for cross-phase liaison initiatives, although it is likely that more influential bodies such as QCA or even the DfES may need to be seen to be endorsing cross-phase activities.

Evaluation of the Research Undertaken and Future Research Areas

The question posed at the outset of this research was 'To what extent is continuity and progression occurring within and between Key Stages 2 and 3 in geography?' Through the methodology adopted for this thesis it has been possible to answer this question in part, although the disadvantages with the chosen methodology (see Chapter 3) necessitates caution about some of the conclusions that may be drawn from the research data. Despite these reservations, however, this thesis has been able to provide data that documents the current extent of continuity and progression as well as raising other significant issues.

In outlining the reasons for choosing to investigate the research question (see Chapter 3), it was apparent that the question itself would necessitate investigation into a number of related issues and themes. The reporting of the findings of this research has proved this to be the case. While the research established that elements of continuity and progression exist within and between these two Key Stages, there are many aspects of continuity and progression that are not being delivered. Indeed, the multiple aspects of what constitutes continuity and progression in the curriculum mean that establishing the extent of continuity and progression, and certainly how it could be improved within and between Key Stages, is a complicated task.

Chapter 2 and the research findings have illustrated the difficulty of ascertaining a clear definition of progression. A number of aspects considered integral to achieving

progression have been discerned although for the purposes of this thesis progression was considered primarily in terms of how geographical content was developed. To this end, the initial data gathering by questionnaire survey focused heavily upon this aspect of progression. While such a focus is not inappropriate, Bennetts (1995a) identifies the structure of content as important in achieving progression, this has provided a limitation to the way in which certain aspects of the research were executed. Indeed, the findings of this research has led the researcher to reconsider the aspects of progression that should receive priority in future research.

In particular, it is felt that when focusing upon progression, it is the nature and sequencing of learning the activities that need to be highlighted by those responsible for ensuring progression in schemes of work. While content, and the sequencing of content, remains important (especially when considering continuity and progression together), this research has illustrated that repetition of content, especially across Key Stages does not necessarily hinder progression. Yet the way in which that content is delivered can expose significant deficiencies in planning for progression if the activities employed do not build upon the prior learning experiences of pupils.

Thus, in considering further areas for research arising out of this thesis, the researcher would advocate far greater focus on the methods and nature of geography teaching at both Key Stage 2 and Key Stage 3. In teaching geography across a Key Stage thought needs to be given as to how learning will be developed within the context of the (often different) content studied. When considering delivery of the subject across Key Stage 2

and 3, more attention needs to be paid as to how the teaching of the same (or similar) content can be achieved in a way that builds upon prior experience, challenges pupils and encourages them to progress. Of assistance in this task may well be the numerous learning strategies that exist to support and develop pupils' learning. There are also, however, other areas of research that could be undertaken to enhance knowledge in the area of continuity and progression.

One such project would be the monitoring or tracking of a Year 5 pupils in geography lessons as they move through Year 6 and into Year 7 and possibly beyond. By following the same pupils it would be possible to not only appreciate the nature of geography teaching in these year groups but also monitor how the pupils themselves responded and the degree of progression that took place. While time did not allow for such a project to be undertaken by this researcher, it would provide valuable insight into the way pupils themselves learn geography and how best this could be built upon in the future.

In order not to neglect the issue of content in achieving continuity and progression altogether, and given the usage (and potential usage) of the QCA schemes of work at Key Stage 2, it may well be apposite to conduct further research similar to that undertaken by Smyth (1993) where primary schools had the content of their curriculum dictated. Such research would provide an indication of how secondary school teachers may alter their perception and take greater notice of what was happening in Key Stage 2, as during this research Key Stage 3 teachers indicated a greater willingness to consider continuity and progression issues if a common content was agreed at Key Stage 2. There is also the

possibility of establishing a differentiation project in geography between primary and secondary schools using the research undertaken by Davison et al (1996) as an example.

There is also a need for the setting up and reporting of more cross-phase liaison projects which could contribute to furthering research on continuity and progression between Key Stages 2 and 3. A case study approach may also be appropriate in reviewing the early implementation of the TLF strategy, especially in terms of how it has been utilised to try and enhance continuity and progression.

While the findings of this thesis can indicate areas for further research, it is also possible to suggest more immediate action that may be undertaken now, or in the near future, that may more fully integrate continuity and progression into the Geography National Curriculum.

Action Required for Future Integration of Continuity and Progression into the Geography National Curriculum

This research has demonstrated that while it is possible to discern elements of continuity and progression within the Geography National Curriculum, there remains many aspects of essential tools of curriculum design that are not being delivered. The publication of schemes of work by QCA have provided an exemplification of how the National Curriculum may be interpreted. In this respect, it should be possible to sequence the content of a Key Stage and across a Key Stage to ensure that the principles of a spiral curriculum are being adhered to. As time restricts the coverage of themes to just once

within a Key Stage for the majority of schools, the sequencing and revisiting of content needs to be considered at a cross-phase level as it is in Key Stage 3 that much revisiting of content first met in Key Stage 2 occurs. Future guidance on continuity and progression at Key Stage 2 and Key Stage 3 should be written in such a way that teachers in secondary school are aware of the likely content covered at primary school and primary school teachers are given a much clearer indication of how content taught at Key Stage 2 is likely to be developed at Key Stage 3. At present documentation published separately for each respective phase reinforces, albeit unintentionally, the schism between these two Key Stages.

While curriculum continuity is desirable to attain progression, it has too often been considered in isolation when planning for progression in the curriculum. With the exception of the revisiting of skills and broadening of place studies, most teachers are not trying to ensure that pupils' learning will build upon what has already been learnt and advance through a series of appropriately challenging activities. This is especially the case at the Key Stage 2 and 3 boundary. This omission needs to be addressed. The current pedagogic debate over the way in which pupils' learn might well provide the stimulus for enhancing progression, for example the work being undertaken on thinking skills in geography (Leat 1998, Higgins 2001). The following comment by Krause (2001) highlights the potential for this to happen:

> 'I am fascinated by the current debate about how we learn, and the development of thinking skills. Geographers with their insatiable appetite for learning about places, engaging with environmental issues, and for travel and adventure, are ideally placed to develop strategies that engage learners with thinking skills...I do feel we need to be

> clearer about why we select particular aspects of our subject for our pupils/students to learn. Why do we think they are so important? Do we need to revisit our knowledge base? Should we re-examine the skills we use to engage our learners? Are we using the most appropriate strategies to explain key concepts?' (Krause 2001).

While it is necessary for geography teachers in all phases to address these questions, it is also necessary for the DfES/QCA to incorporate developments in these areas into their strategies. This should begin at ITT level (Chapman 2001b). Catling (2001b) concurs with this view, stating that there is a need for 'an awareness of learning styles and approaches and teaching methods should be raised across the sector for trainees' (Catling 2001b p1) and that both secondary PGCE geography tutors and primary/BA geography tutors might be able to include more on learning environments in primary and secondary schools, possibly in a school based context. To implement this may well require a directive from the DfES itself (Chapman 2001b).

In other areas of DfES/QCA involvement, more direct guidelines are required. While much has been made of interpreting the content of the National Curriculum, far more guidance needs to be provided on how that content can be delivered to ensure progression. Exemplification of the learning strategies that may be employed and the expectations teachers should have of their pupils could be transposed from the current learning debate into official documentation. Exemplar material to date from QCA has concentrated on standards achieved or desirable at various points in the National Curriculum. Very little has been published on how pupils may be taught such that they progress. The thinking skills strategy is cross-curricular and thus a cross-curricular approach to progression could be adopted by QCA.

The introduction in 2002 of the 'Teaching and Learning in the Foundation Subjects' (TLF) strand of the Key Stage 3 National Strategy (DfES 2001b), may well be the vehicle to promote greater consideration of ways to enhance progression. Indeed, the statements made regarding progression would appear to indicate a willingness to do this:

> 'Developing progression throughout Key Stage 3, and strengthening the transition from Key Stages 2 to 3 by promoting the importance of:
> recognising and building upon what has already been learnt at Key Stage 2;
> planning led by clear objectives which are focused on progression in the national curriculum; and
> providing continuity and progression in pedagogy from Key Stages 2 to 3 and throughout Key Stage 3.'
> (Key Stage 3 National Strategy TLF DfES 2001b p1).

In terms of continuity, the strategy states that it intends to:

> 'help teachers plan and sequence effective teaching and learning; and
> ensuring that pupils are actively involved in the learning process, and are aware of where they need to improve, have the skills to make the necessary steps and have the self-esteem and confidence to take on the challenge.'
> (Key Stage 3 National Strategy TLF DfES 2001b p2).

As the TLF strategy is implemented it is crucial that progression is illustrated through the exemplification of material, that the sequencing of work is demonstrated not only across the key stage but also within individual units of work. It is also imperative that in its desire to encourage continuity and progression between Key Stages 2 and 3, that the starting point is Key Stage 2. The TLF strand has been introduced at Key Stage 3. Yet by its very desire to achieve greater cross-phase progression, it must begin at Key Stage 2. In many respects, what is required is a Key Stage 2 and 3 TLF strand that ensures secondary school teachers become aware of the learning environment of the primary classroom, and

primary school teachers are much better equipped to provide the learning experiences that will be developed at secondary school.

Through the embodiment of this strategy geography is well placed to refocus discussions of progression on how children learn, as Krause's comment above illustrates. Yet geography teachers need to be aware that it is a strategy that is cross-curricular. There will still be the need to ensure that continuity and progression are enhanced in the Geography National Curriculum. Publication will help in this respect, as with exemplar materials and guidance on how to integrate literacy into geography (Owen 2001, Rider 2001,Thompson and Krause 2001, Thompson et al 2001).

Even with the introduction of the TLF strand of the Key Stage 3 Strategy there is still an urgent need for greater cross-phase liaison. Without cross-phase liaison it is very difficult, at the local scale, for secondary school teachers to set appropriate and challenging tasks for Year 7 (and Year 8 and 9) pupils. This research has highlighted a number of possible ways that cross-phase liaison may be developed. Yet for cross-phase liaison to be successful, changes are required beyond the control of heads of geography and geography coordinators. The need for broader educational issues to be considered are implicit in many of the suggested cross-phase activities. Time, finance, timetabling of INSET activities and induction days require consideration at school, LEA and even governmental level. Williams and Howley (1989) recognised this need, as did Rawling some 11 years later (Rawling 2000a). The DfES's new potential source of funding (DfEE 2001) is the first stage in providing the structures necessary for cross-phase liaison. The

TLF strand of the Key Stage 3 Strategy should also be used by the DfES to provide far more opportunities for cross-phase liaison, at the very least providing opportunities for foundation subjects in general. Schools, organisations, LEA advisors and individual teachers also need to be working to provide the framework to deliver cross-phase initiatives.

In future, geography coordinators and heads of geography are not only going to have to work with each other, but are also going to have integrate their activities into a more general framework of liaison. This may involve a combined humanities approach to liaison, using the combination of a number of subjects to make a more powerful impact upon liaison activities and discussions. Many suggested liaison activities could be delivered under such a broad subject umbrella. To this extent, future commentators on this topic need to examine the way in which suggested liaison activities could be integrated into the broader issue of transfer and transition between Key Stages 2 and 3.

Summary of Areas for Further Action and Concluding Remarks

The issues arising from this research and the areas for further action are summarised in the Table 7.1.

Table 7.1 Issues Arising and Areas for Further Action

1 More time and finance needs to be devoted to developing the role of the primary school geography coordinator, a need that schools are not meeting under current funding and INSET provision.

2 Further exemplification and support for geography coordinators in designing Key Stage 2 schemes of work, and in particular, in interpreting the QCA exemplar materials.

3 Greater sharing of good practice in teaching and planning of the Key Stage 2 curriculum, especially through INSET and publication.

4 A greater understanding, again through INSET and publication, of the principles of continuity and progression, and how this might be achieved, without leading to repetition of material.

5 The funding and provision of dedicated INSET time for cross-phase liaison in geography, or foundation subjects in general, is required.

6 Greater concentration on teacher visits and exchanges of pupils' work and schemes of work is required between primary and secondary school geographers.

7 Heads of geography in secondary schools need be more pro-active in encouraging cross-phase liaison, especially given the erosion of other structures that might facilitate such initiatives.

8 Investigation of more joint cross-curricula initiatives involving humanity foundation subjects and exploration of ways to broaden the induction process.

9 The development of a national linking project by the Geographical Association, QCA or another organisation, suitable for use by all schools, which may well require aspects of literacy and numeracy to ensure take up by primary schools.

10 More publications of Key Stage 2 work in journals such as *Teaching Geography* and Key Stage 3 work in *Primary Geographer*, as well as on the QCA website, to include exemplar pupil material, teaching activities and schemes of work.

11 ITT courses to incorporate a greater degree of cross-phase teaching at the subject level

If the geography curriculum is to become more integrated across the Key Stages, then continuity and progression are essential elements of that process. A curriculum that allows pupils to develop their knowledge, skills and understanding in a challenging but reinforcing way can only be achieved through an enhancement of continuity and progression. A greater focus on progression will enable teachers 'to support learners as they develop their own sense of place, and give them confidence to engage with, and contribute to, the wider world' (Krause 2001). In the current educational climate, perhaps

one of the most important considerations in reappraising the role of continuity and progression is that standards within all Key Stages will improve if geography can manifest curriculum continuity and learning progression. Westaway and Rawling (2001) in postulating ways in which geography can improve its numbers at GCSE cite continuity and progression from primary school and through Key Stage 3 as essential in raising the standards of geography as a subject:

> ‘Make all students’ experience of geography in Key Stage 3 a positive one that builds effectively on their geographical experiences in Key Stage 1 and 2. This requires high quality schemes of work, good geography teaching by specialist geography teachers, varied and challenging resources, stimulating teaching and learning activities that engage students hearts’ as well as their heads, and a full programme of fieldwork’ (Westaway and Rawling 2001 p110).

This research has demonstrated, as Carter (1999a) postulates, the need for further work on narrowing the gulf between Key Stage 2 and Key Stage 3 in geography. Not only is this required to enhance continuity and progression, but also to improve standards in the respective phases. The obvious mechanism for this is through cross-phase liaison which, to date, has been confined to isolated projects, often on a small scale. The purpose of cross-phase liaison is not necessarily to alter the content that is being taught at Key Stages 2 and 3 (although this may be consequence of greater cooperation). If, however, continuity and progression between primary and secondary schools is to be enhanced, cross-phase liaison is required to educate secondary school teachers in the culture of the primary classroom, how children learn and how topics are delivered at Key Stage 2. Only with this knowledge, can teachers at Key Stage 3 develop teaching strategies that take

account of previous work, and adopt strategies to deliver topics in an original way that builds upon and extends pupils' prior experiences.

Geography, as a foundation subject, will be subject to continual curriculum pressures, especially in primary schools, but also increasingly so in secondary schools. The future may lie in combining local efforts with broader, more widespread initiatives which look to work within the current curriculum constraints in primary and secondary school as well as lobbying for change in other areas to facilitate closer cross-phase liaison and ultimately improve continuity and progression between Key Stages 2 and 3 in geography.

Appendix 1

Primary School Questionnaire with Covering Letter

Secondary School Questionnaire with Covering Letter

e-mail: simon.[redacted]

Dear Geography Coordinator,

Continuity and Progression within Key Stages 2 and 3: Geography.

I am presently undertaking research into cross-phase liaison with respect to geography education in Key Stages 2 and 3. This research is based at the University of Birmingham and will be integral to the writing of my PhD thesis.

Given the uncertainty surrounding geography's place within the Key Stage 2 curriculum I am trying to ascertain the nature of the transition that occurs between this key stage and the next. To do this I need to gather information about:

The geography that is actually taught at Key Stages 2 and 3

Continuity and progression in the geography National Curriculum

The communication that exists between primary (feeder) schools and secondary schools (cross-phase liaison)

It would be extremely helpful if you could complete the enclosed questionnaire and return it to me in the stamped addressed envelope provided. It should take no longer than 15 minutes of your time. All responses will be treated in confidence; no data will be attributable to an individual, school or LEA within this research. If, however, you are willing to take part in a brief follow up interview about your responses, please could you write your name and school in the space provided at the end of the questionnaire.

Thank you for your participation,

Simon Chapman

Simon Chapman
(Head of Geography, Warwick School)

SECTION 1 Curriculum Content

1 Please tick the following aspects of **geographical skills** you might expect to teach during Key Stage 2. Also indicate in which year group this would take place. If the skills are taught in a number of years please ring more than one.

Geographical Skills	**Tick here**	**Ring year**
Make plans and maps at variety of scales, using symbols and keys		3 4 5 6
Understand how to use and give four figure grid references		3 4 5 6
Be able to measure direction and distance		3 4 5 6
Using a contents and index page of an atlas		3 4 5 6
Be able to use 1:50,000 OS Map		3 4 5 6
Be able to use 1:25,000 OS Map		3 4 5 6
Understand how to use and give six figure grid references		3 4 5 6
How draw an annotated sketch map from an OS Map		3 4 5 6
How to draw cross-sections from OS Maps		3 4 5 6
Use graphs to present geographical information		3 4 5 6
Locate places in an atlas		3 4 5 6
Other (please specify)		3 4 5 6

2 Please tick the **place studies** you might expect to teach during Key Stage 2. Also indicate in which year group this would take place. If the places are taught in a number of years please ring more than one.

Places	**Tick here**	**Ring Year**
Study of local area of the school		3 4 5 6
Study of locality elsewhere in UK		3 4 5 6
Study of locality in a developing country		3 4 5 6
Study of developed country outside UK		3 4 5 6
Study of a developing country		3 4 5 6
Other (please specify)		3 4 5 6

3 Please tick the following aspects of **geographical themes** you might expect to teach during Key Stage 2. Also indicate in which year group this would take place. If the themes are taught in a number of years please ring more than one.

A) Rivers	**Tick here**	**Ring Year**
How rivers erode, transport and deposit material		3 4 5 6
Landforms associated with river channels		3 4 5 6
The water cycle		3 4 5 6
The drainage basin system		3 4 5 6
Causes and effects of river floods		3 4 5 6
Other (please specify)		3 4 5 6

B) Weather	**Tick here**	**Ring year**
How site conditions influence weather		3 4 5 6
Seasonal weather patterns		3 4 5 6
How weather and climate differ		3 4 5 6
Other (please specify)		3 4 5 6

C) Tectonic processes	Tick here	Ring year
Processes associated with movement of tectonic plates		3 4 5 6
The causes and effects of earthquakes		3 4 5 6
The causes and effects of volcanic eruptions		3 4 5 6
Other (please specify)		3 4 5 6

D) Coasts	Tick here	Ring year
The formation of coastal landforms		3 4 5 6
Causes and effects of cliff collapse or coastal flooding		3 4 5 6
Other (please specify)		3 4 5 6

E) Ecosystems	Tick here	Ring year
The characteristics and distribution of one type of vegetation		3 4 5 6
Other (please specify)		3 4 5 6

F) Settlements	Tick here	Ring year
Settlements vary in size		3 4 5 6
Settlements have different functions		3 4 5 6
Conflicts over use of land in settlements		3 4 5 6
Reasons for location and growth of settlements		3 4 5 6
How types and variety of goods and services vary in settlements of different sizes		3 4 5 6
Different types and patterns of urban land use		3 4 5 6
Other (please specify)		3 4 5 6

G) Environment	Tick here	Ring year
How people affect the environment		3 4 5 6
How people manage the environment		3 4 5 6
Unintended effects of managing environment		3 4 5 6
Why areas are of great scenic attraction		3 4 5 6
Conflicts arising from managing environment		3 4 5 6
Provision of fresh water supply		3 4 5 6
Causes, effects and prevention of water pollution		3 4 5 6
Provision of energy supply		3 4 5 6
Environmental effects of different energy sources		3 4 5 6
Other (please specify)		3 4 5 6

H) Economic Activity	Tick here	Ring year
Difference between primary, secondary and tertiary industries		3 4 5 6
Study of one form of economic activity eg a type of farm, transport or car industry		3 4 5 6
The effects of the changing distribution of this economic activity		3 4 5 6
Other (please specify)		3 4 5 6

I) Development	Tick here	Ring year
Identify differences in development between countries		3 4 5 6
How differences in development affect the quality of life in different countries		3 4 5 6
Other (please specify)		3 4 5 6

J) Population	Tick here	Ring year
The global distribution of population		3 4 5 6
The causes and effects of changes in population sizes of regions and countries		3 4 5 6
Causes and effects of migration		3 4 5 6
Other (please specify)		3 4 5 6

4 Please tick the following **resources** (other than ICT) you might expect to use to aid geography teaching during Key Stage 2. Also indicate in which year group this would take place. If the resources are used in a number of years please ring more than one.

Resources	Tick here	Ring year
Text books		3 4 5 6
Videos		3 4 5 6
Pictures		3 4 5 6
Aerial photographs		3 4 5 6
Satellite Images		3 4 5 6
Other (please specify)		3 4 5 6

5 Please tick the following aspects of **Information Communications Technology (ICT)** you might expect to use to aid geography teaching during Key Stage 2. Also indicate in which year group this would take place. If the aspects of ICT are used in a number of years please ring more than one.

ICT	Tick here	Ring year
CD Roms		3 4 5 6
Word-processing for geography		3 4 5 6
Spreadsheets		3 4 5 6
Mapping packages		3 4 5 6
Desktop publishing packages		3 4 5 6
Other commercially produced software (please specify)		3 4 5 6

6 In the space below, please indicate the main ways in which you decided upon the geography subject content to be taught at Key Stage 2. If there are any constraining factors to this choice please make this clear.

SECTION 2 Cross-Phase Liaison with Secondary Schools

When completing this section of the questionnaire, please answer with respect to the main secondary school that the majority of your pupils transfer to at the end of Key Stage 2. If pupils transfer in approximately equal numbers to more than one school, please fill out a second copy of this section of the questionnaire.

Please indicate if any of the following take place:

1a) Do you have meetings with member(s) of the geography department in the secondary school? Yes/No

b) If yes how frequently do these take place? Once a year in year 6?
Once a term in year 6?
Other (please specify)

c) When were such meetings first set up? _____

d) Who is responsible for convening the meetings and setting the agenda? _____

_____

e) Are teachers from other primary schools at these meetings? Yes/No

2a) Does a more general meeting take place between your school and the secondary school where aspects of geography may be discussed as part of links with the secondary school? Yes/No

b) If so, who represents the interests of geography at such a meeting? _____

_____

3 Please indicate on the list below which of the following currently take place between you and the secondary school (please tick):

	Tick here
Exchanges of schemes of work for geography	
Information on localities studied in UK and overseas at KS1 and KS2	
Transfer of pupil records/assessments in geography	
Secondary teachers view samples of work completed by year 6 pupils	
Teachers from the secondary school teach/participate in year 6 lessons	
Fieldwork trips carried out jointly for year 6 and 7 pupils	
Year 6 pupils spend a day at the secondary school in which they may participate in some geographical activity	
Other (please specify)	

4 What do you think enhances, and what inhibits successful primary-secondary liaison?

Enhances Liaison:

Inhibits Liaison:

SECTION 3 Geography in Primary the Primary Curriculum

1 How much time is devoted to geography a) per week? _____ hours b) per term? _____ hours

2 Is geography mainly taught as (please tick):

a) a separate subject?
b) Through topic work combined with other subjects?
c) both as a separate subject and through topic work?

3 In 1998 the requirement to fulfill all aspects of the national curriculum in foundation subjects at Key Stage 2 was removed. As a result of this:

a) Have you altered (or intend to alter) the way in which geography is delivered? Yes/No

b) If yes, have you omitted parts of the geography national curriculum? Yes/No
(please state what has/will be omitted in the space below):

c) Have you recently changed your approach to teaching geography (eg delivering geography through more topic work)? Yes/No
(please specify any changes in the space below):

4a) Do you keep separate records of pupils progress in geography ? Yes/No

b) If yes, what form do these take?

Name (Optional) _____ School (Optional) _____

Thank you for completing this questionnaire. Code:_____

T
e-mail: simon.ch

Dear Head of Geography,

Continuity and Progression within Key Stages 2 and 3: Geography.

I am presently undertaking research into cross-phase liaison with respect to geography education in Key Stages 2 and 3. This research is based at the University of Birmingham and will be integral to the writing of my PhD thesis.

Given the uncertainty surrounding geography's place within the Key Stage 2 curriculum I am trying to ascertain the nature of the transition that occurs between this key stage and the next. To do this I need to gather information about:

The geography that is actually taught at Key Stages 2 and 3

Continuity and progression in the geography National Curriculum

The communication that exists between primary (feeder) schools and secondary schools (cross-phase liaison)

It would be extremely helpful if you (or one of your colleagues) could complete the enclosed questionnaire and return it to me in the stamped addressed envelope provided. It should take no longer than 15 minutes of your time. All responses will be treated in confidence; no data will be attributable to an individual, school or LEA within this research. If, however, you are willing to take part in a brief follow up interview about your responses, please could you write your name and school in the space provided at the end of the questionnaire.

Thank you for your participation,

Simon Chapman

Simon Chapman
(Head of Geography, Warwick School)

SECTION 1 Curriculum Content

1 Please tick the following aspects of **geographical skills** you might expect to teach during Key Stage 3. Also indicate in which year group this would take place. If the skills are taught in a number of years please ring more than one.

Geographical Skills	**Tick here**	**Ring year**
Make plans and maps at variety of scales, using symbols and keys		7 8 9
Understand how to use and give four figure grid references		7 8 9
Be able to measure direction and distance		7 8 9
Using a contents and index page of an atlas		7 8 9
Be able to use 1:50,000 OS Map		7 8 9
Be able to use 1:25,000 OS Map		7 8 9
Understand how to use and give six figure grid references		7 8 9
How draw an annotated sketch map from an OS Map		7 8 9
How to draw cross-sections from OS Maps		7 8 9
Use graphs to present geographical information		7 8 9
Locate places in an atlas		7 8 9
Other (please specify)		7 8 9

2 Please tick the **place studies** you might expect to teach during Key Stage 3. Also indicate in which year group this would take place. If the places are taught in a number of years please ring more than one.

Places	**Tick here**	**Ring Year**
Study of local area of the school		7 8 9
Study of locality elsewhere in UK		7 8 9
Study of locality in a developing country		7 8 9
Study of developed country outside UK		7 8 9
Study of a developing country		7 8 9
Other (please specify)		7 8 9

3 Please tick the following aspects of **geographical themes** you might expect to teach during Key Stage 3. Also indicate in which year group this would take place. If the themes are taught in a number of years please ring more than one.

A) Rivers	**Tick here**	**Ring Year**
How rivers erode, transport and deposit material		7 8 9
Landforms associated with river channels		7 8 9
The water cycle		7 8 9
The drainage basin system		7 8 9
Causes and effects of river floods		7 8 9
Other (please specify)		7 8 9

B) Weather	**Tick here**	**Ring year**
How site conditions influence weather		7 8 9
Seasonal weather patterns		7 8 9
How weather and climate differ		7 8 9
Other (please specify)		7 8 9

C) Tectonic processes	Tick here	Ring year
Processes associated with movement of tectonic plates		7 8 9
The causes and effects of earthquakes		7 8 9
The causes and effects of volcanic eruptions		7 8 9
Other (please specify)		7 8 9

D) Coasts	Tick here	Ring year
The formation of coastal landforms		7 8 9
Causes and effects of cliff collapse or coastal flooding		7 8 9
Other (please specify)		7 8 9

E) Ecosystems	Tick here	Ring year
The characteristics and distribution of one type of vegetation		7 8 9
Other (please specify)		7 8 9

F) Settlements	Tick here	Ring year
Settlements vary in size		7 8 9
Settlements have different functions		7 8 9
Conflicts over use of land in settlements		7 8 9
Reasons for location and growth of settlements		7 8 9
How types and variety of goods and services vary in settlements of different sizes		7 8 9
Different types and patterns of urban land use		7 8 9
Other (please specify)		7 8 9

G) Environment	Tick here	Ring year
How people affect the environment		7 8 9
How people manage the environment		7 8 9
Unintended effects of managing environment		7 8 9
Why areas are of great scenic attraction		7 8 9
Conflicts arising from managing environment		7 8 9
Provision of fresh water supply		7 8 9
Causes, effects and prevention of water pollution		7 8 9
Provision of energy supply		7 8 9
Environmental effects of different energy sources		7 8 9
Other (please specify)		7 8 9

H) Economic Activity	Tick here	Ring year
Difference between primary, secondary and tertiary industries		7 8 9
Study of one form of economic activity eg a type of farm, transport or car industry		7 8 9
The effects of the changing distribution of this economic activity		7 8 9
Other (please specify)		7 8 9

I) Development	Tick here	Ring year
Identify differences in development between countries		7 8 9
How differences in development affect the quality of life in different countries		7 8 9
Other (please specify)		7 8 9

J) Population	Tick here	Ring year
The global distribution of population		7 8 9
The causes and effects of changes in population sizes of regions and countries		7 8 9
Causes and effects of migration		7 8 9
Other (please specify)		7 8 9

4 Please tick the following **resources** (other than ICT) you might expect to use to aid geography teaching during Key Stage 3. Also indicate in which year group this would take place. If the resources are used in a number of years please ring more than one.

Resources	Tick here	Ring year
Text books		7 8 9
Videos		7 8 9
Pictures		7 8 9
Aerial photographs		7 8 9
Satellite Images		7 8 9
Other (please specify)		7 8 9

5 Please tick the following aspects of **Information Communications Technology (ICT)** you might expect to use to aid geography teaching during Key Stage 3. Also indicate in which year group this would take place. If the aspects of ICT are used in a number of years please ring more than one.

ICT	Tick here	Ring year
CD Roms		7 8 9
Word-processing for geography		7 8 9
Spreadsheets		7 8 9
Mapping packages		7 8 9
Desktop publishing packages		7 8 9
Other commercially produced software (please specify)		7 8 9

6 In the space below, please indicate the main ways in which you decided upon the geography subject content to be taught at Key Stage 3. If there are any constraining factors to this choice please make this clear.

7 Are assumptions made about the geographical knowledge, understanding and skills that pupils will arrive with in Year 7?

Yes/No

If yes, what do you feel in general, pupils will have covered adequately in Key Stage 2?

SECTION 2 Cross-Phase Liaison with Primary Schools

Please indicate if any of the following take place:

1a) Do you have meetings with geography coordinators of feeder primary schools? Yes/No

b) If yes how frequently do these take place? Once a year in year 6?
Once a term in year 6?
Other (please specify)

c) When were such meetings first set up? _____

d) Who is responsible for convening the meetings and setting the agenda? _____

_____

e) Are teachers from other primary schools at these meetings? Yes/No

2a) Does a more general meeting take place between your school and feeder primary schools where aspects of geography may be discussed as part of links with the secondary school? Yes/No

b) If so, who represents the interests of geography at such a meeting? _____

_____

3 Please indicate on the list below which of the following currently take place between you and any of your feeder primary schools (please tick):

	Tick here
Exchanges of schemes of work for geography	
Information on localities studied in UK and overseas at KS1 and KS2	
Transfer of pupil records/assessments in geography	
Secondary teachers view samples of work completed by year 6 pupils	
Teachers from the secondary school teach/participate in year 6 lessons	
Fieldwork trips carried out jointly for year 6 and 7 pupils	
Year 6 pupils spend a day at the secondary school in which they may participate in some geographical activity	
Other (please specify)	

4 What do you think enhances, and what inhibits successful primary-secondary liaison?

Enhances Liaison:

Inhibits Liaison:

SECTION 3 Geography in the Secondary Curriculum

1 How much time is devoted to geography a) per week? _____ minutes b) per term? _____ hours

2 Please indicate how geography is delivered at Key Stage 3 (please tick):

Year	Taught as part of a Humanities course	Taught as a separate subject
7		
8		
9		

3 In 1998 the requirement to fulfill all aspects of the national curriculum in foundation subjects at Key stage 2 was removed. As a result of this:

a) Have you altered (or intend to alter) the way in which geography is delivered at Key Stage 3?
Yes/No

b) If yes, have you taught parts of the geography national curriculum previously assumed to be covered at Key Stage 2? Yes/No
(please state what has/will be altered/taught in the space below):

Name (Optional) _____ School (Optional) _____

Thank you for completing this questionnaire. Code _____

Appendix 2

Questions Asked at Primary and Secondary School Case Study Interviews (including Pupil Interviews) with Example of Covering Letter and Prompt Sheet Used During Interviews

24th March 2000

Dear

You may recall that last summer you were kind enough to respond to a questionnaire that I sent investigating continuity, progression and cross-phase liaison between key stage 2 and key stage 3 in geography. The questionnaire formed part of a research thesis that I am undertaking, studying for a PhD at Birmingham University.

Questionnaires were distributed to all primary and secondary schools in Birmingham, Coventry, Solihull and Warwickshire LEAs. The results of these questionnaires have now been analysed and some key questions identified arising from responses given. The next stage of the research process is to conduct a small number of case study interviews to provide depth to the questionnaire findings and to further investigate the key issues arising from responses to the questionnaire. If possible, I would like to carry out these interviews between now and the end of the summer term.

As you indicated that you would be prepared to take part in such a follow-up discussion, I am writing to ask if I could make an arrangement to do so at a mutually convenient time, either during school hours or at the beginning or end of a school day. I would envisage the discussion lasting approximately 45 minutes. For your information, I have enclosed a copy of the questions/issues I would like to ask/discuss.

For convenience, and to ensure an accurate and full transcript can be produced following the discussion, I would like to tape the interviews. All information gathered would be used in the writing of the unpublished PhD thesis. If any direct quotes from interviews are to be used, approval to include such a quote will be sought before submitting the thesis for examination. If subsequently, material from the thesis is to be published in another format, approval of direct quotes will once again be sought.

I greatly appreciate the help you have already given me in my research and thank you in advance for your further cooperation. Perhaps you would be kind enough to contact me at home or at school to arrange a time for an interview.

Yours sincerely,

Simon Chapman
Head of Geography, Warwick School.

QUESTIONS FOR CASE STUDY INTERVIEWS - PRIMARY SCHOOLS

Continuity and Progression

1 How is continuity and progression in geography ensured across key stages 1 and 2?
2 To what extent do you feel that continuity and progression successfully occurs from key stage 2 to 3 in geography?
3 How are geographical topics and themes selected for teaching at key stages 1 and 2? Is this selection influenced by what will eventually be taught at key stage 3?
4 The QCA plans to publish schemes of work for key stages 1,2 and 3 later this year. How far do you think these might influence your planning and delivery of geography?

Cross-Phase Liaison (*italics represent modification of question where little or no liaison undertaken*)

1 What form of cross-phase liaison has taken place for geography? How successful would you consider this liaison to have been?
2 To what extent has (*or could be*) cross-phase liaison been instrumental in determining the content and design of the geography curriculum?
3 To what extent has (*or could*) cross-phase liaison influenced the ways in which geography has been taught in the classroom?
4 What do you feel are the benefits of cross-phase liaison in geography for pupils? For staff?
5 Has cross-phase liaison had (*or could have*) a beneficial effect on continuity and progression between key stages 2 and 3? If so, in what ways has it proved (*or could prove*) beneficial?
6 In what ways could cross-phase liaison be improved?

Additional Information:

If you are able to supply some or all of the following, this would greatly help my research:

Relevant schemes of work in geography
Examples of records kept and/or transferred in geography
Other information relating to any cross-phase liaison activity
Example of a year 5 and or 6 pupil's geography work.
A short list of the main schools to which pupils transfer in year 7

QUESTIONS FOR CASE STUDY INTERVIEWS - SECONDARY SCHOOLS

Continuity and Progression

1 How is continuity and progression in geography ensured from key stage 2 to key stage 3?
2 To what extent is the selection of geographical topics and themes for key stage 3 influenced by what has been taught at key stage 2?
3 The QCA plans to publish schemes of work for key stages 1,2 and 3 later this year. How far do you think these might influence your planning and delivery of geography?
4 What are your impressions of the geographical knowledge, understanding and skills that most pupils will bring with them from primary school when they enter year 7?

Cross-Phase Liaison (*italics represent modification of question where little or no liaison undertaken*)

1 What form of cross-phase liaison has taken place for geography? How successful would you consider this liaison to have been?
2 To what extent has (*or could be*) cross-phase liaison been instrumental in determining the content and design of the geography curriculum?
3 To what extent has (*or could*) cross-phase liaison influenced the ways in which geography has been taught in the classroom?
4 What do you feel are the benefits of cross-phase liaison in geography for pupils? For staff?
5 Has cross-phase liaison had (*or could have*) a beneficial effect on continuity and progression between key stages 2 and 3? If so, in what ways has it proved (*or could prove*) beneficial?
6 In what ways could cross-phase liaison be improved?

Additional Information:

If you are able to supply some or all of the following, this would greatly help my research:

Relevant schemes of work in geography
Examples of records kept and/or transferred in geography
Other information relating to any cross-phase liaison activity
Example of a year 7 pupil's geography work.
A short list of the main feeder schools from which pupils transfer in year 7

PRIMARY_____Teacher_____

Continuity and Progression

1 How is continuity and progression in geography ensured across key stages 1 and 2?

Spiral curriculum, Progression of scale, local to wider issues, nature of the teaching – topic based,

2 To what extent do you feel that continuity and progression successfully occurs from key stage 2 to 3 in geography?

Overlap, Response of secondary teachers, Assessments/record transferal, Estimation of pupils ability, Are pupils taught down to, repeating of work, teaching topics at primary, effect on pupils, how closely is national curriculum referenced?

3 How are geographical topics and themes selected for teaching at key stages 1 and 2? Is this selection influenced by what will eventually be taught at key stage 3?

NC? QCA schemes? Personal interest? Resources? Issue of repeating work, style of teaching, attempt at spiral curriculum, any thought to next stage? Strectching and therefore covering KS3 work?

4 The QCA plans to publish schemes of work for key stages 1,2 and 3 later this year. How far do you think these might influence your planning and delivery of geography?

Adopt this rather than NC? More inclined to deliver it if feel secondaries will take note of what is being taught? Will secondaries take notice?

Cross-Phase Liaison (*italics represent modification of question where little or no liaison undertaken*)

1 What form of cross-phase liaison has taken place for geography? How successful would you consider this liaison to have been?

2 To what extent has (*or could be*) cross-phase liaison been instrumental in determining the content and design of the geography curriculum?

3 To what extent has (*or could*) cross-phase liaison influenced the ways in which geography has been taught in the classroom?

4 What do you feel are the benefits of cross-phase liaison in geography for pupils? For staff?

5 Has cross-phase liaison had (*or could have*) a beneficial effect on continuity and progression between key stages 2 and 3? If so, in what ways has it proved (*or could prove*) beneficial?

6 In what ways could cross-phase liaison be improved?

Who responsible? Who should take on the role?

Additional Information:

Relevant schemes of work in geography
Examples of records kept and/or transferred in geography
Other information relating to any cross-phase liaison activity
Example of a year 5 and or 6 pupil's geography work.
A short list of the main schools to which pupils transfer in year 7

Appendix 3

Letter Sent to Key Geographical Educationalists for Comment on Research Findings with List of Recipients

Dear ,

I am a part time PhD student at the University of Birmingham, currently in the third year of research into the effects on pupils' experiences of learning geography of transferring from key stage 2 to 3.

Part of this research has involved an analysis of continuity, progression and cross-phase liaison in geography, as well as an investigation into the current state of the subject in both primary and secondary schools in the West Midlands.

The purpose of writing to you is twofold. Firstly to share some of my findings so far, and secondly to enquire whether you could help me with any references, contacts or ideas that you think might be helpful for me to pursue. I am in the process of trying to publish some of my work in *Teaching Geography* and *Primary Geographer* and would ultimately like to publish more substantial findings in academic journals.

In essence my research so far shows that:

- most primary school geography co-ordinators feel that the National Curriculum has provided the subject with a firmer footing at primary level and a clearer curriculum identity compared to the situation pre 1991,
- pressure of time is the most common factor influencing the degree of coverage of geography at primary level, particularly given the introduction of literacy and numeracy requirements,
- geography is often 'blocked' within one term in primary schools, rather than being taught as a continuous experience throughout the school year. SATs dominate year 6 meaning that many pupils may have their last experience of geography in the autumn term of year 5.
- the suspension of geography from the National Curriculum at key stages 1 and 2 from 1998 to 2000 has *not* had the effect of removing it totally from the primary curriculum,
- the design of schemes of work for geography at key stage 2 is a major concern; geography is deemed a low priority for support in LEAs and the QCA schemes of work have been introduced as *the* geography curriculum in some schools,
- the responsibility for developing a geography scheme of work and the fostering of good geography teaching has remained with the geography co-ordinator in primary schools. Little time or money has been devoted to the professional development of

this role despite Ofsted recommendations, although the new professional development strategy announced by the DFEE in March 2001 may be a source of future funding

- secondary school teachers appear unwilling or unable to recognise the sound experience that many pupils have had learning geography at primary level, adversely affecting continuity and progression,
- 'bridging projects' in geography between primary and secondary schools have proved successful in achieving greater continuity and progression in some schools and could be extended to a similar project on a national scale,
- at secondary level the changes to GCSEs and A/AS levels are of greatest concern to geography teachers, not key stage 3 or the transfer of pupils from primary schools,
- neither primary nor secondary school geography teachers have a full understanding of how their subject is delivered at the preceding/following key stages,
- cross phase liaison is very patchy in geography, neither phase appears to fully understand what would be the most appropriate form and content for such liaison,
- there is a lack of supporting structures for cross-phase liaison, notably finance, dedicated INSET time and opportunities for teacher exchanges. In the Midlands, some structures that have been put in place have been eroded by pressures from other curriculum areas,
- some repetition of work occurs in geography after key stage 2, due to geography co-ordinators at primary level 'drifting' into teaching key stage 3 themes or secondary teachers not understanding what has already been covered at key stage 2,
- a broader approach to cross-phase liaison may be required, including combining with other humanity subjects as well as numeracy and literacy initiatives.

These points are obviously only very briefly stated, but give a flavour of the findings I have at present. I would appreciate any input that you could make in response to any of the points raised - either in the form of a comment, or a reference to materials/publications that might take my research further. My main concern is how, in future, the strength of geography at primary level can be enhanced and liaison between key stages 2 and 3 can be improved.

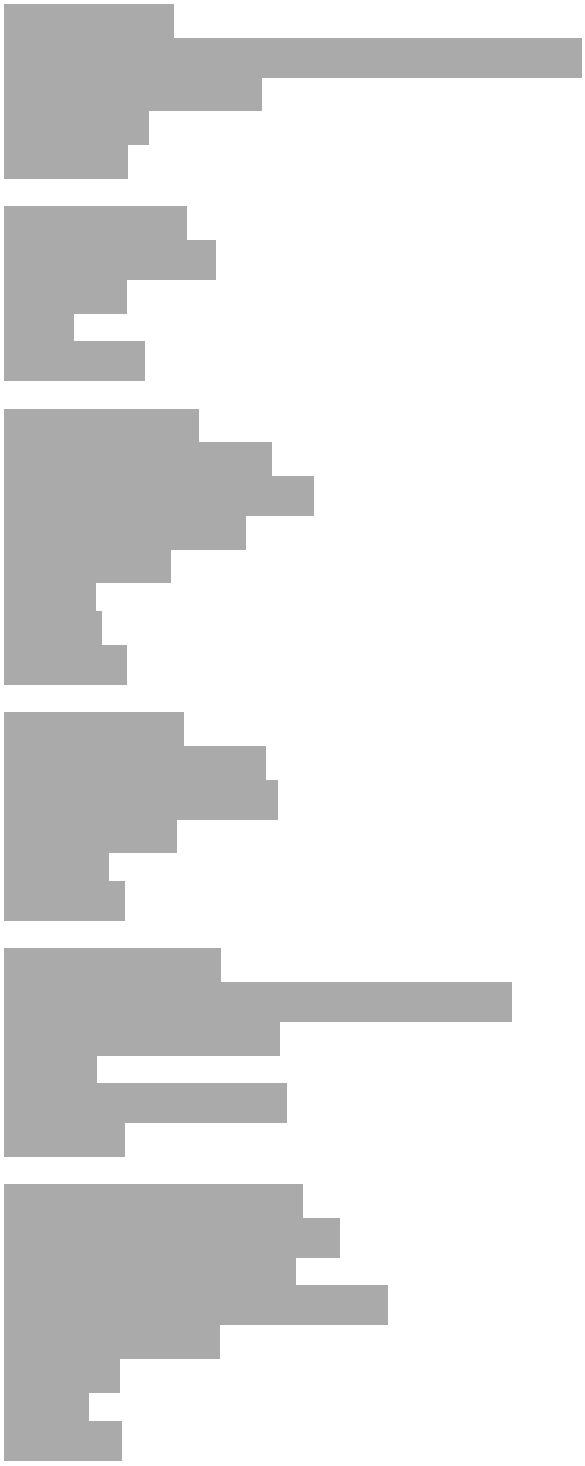
The future for geography education within the National Curriculum, particularly concerning the successful transfer of pupils from key stage 2 to 3, may hinge upon the combining of local initiatives with a broader national realisation of the issues faced. I feel that it will be important for the subject to achieve better continuity and progression, largely as a result of closer cross phase liaison, if it is to develop at both primary and secondary levels.

I look forward to your response,

Yours sincerely,

Simon Chapman.
(Head of Geography, Warwick School, [redacted]

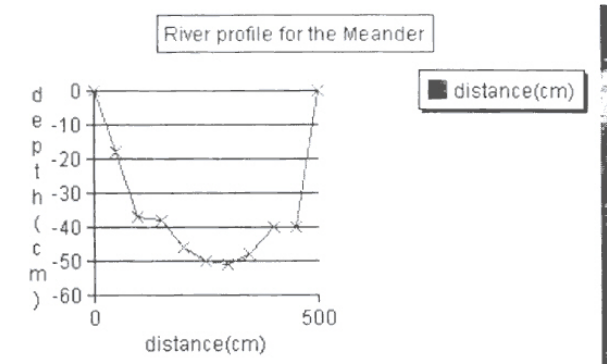
List of recipients for the letter:

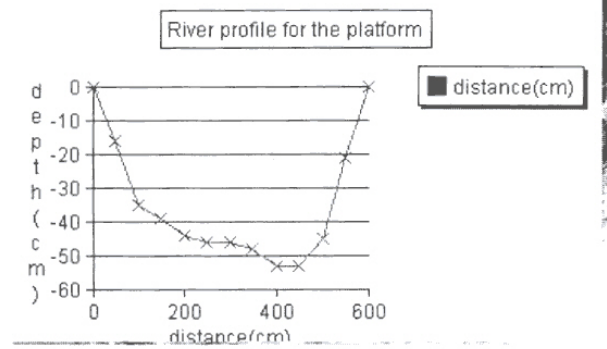


Appendix 4

Samples of Hydrology Work Undertaken by Year 5 and 6 Pupils at Catworth Primary School During a Residential Fieldcourse

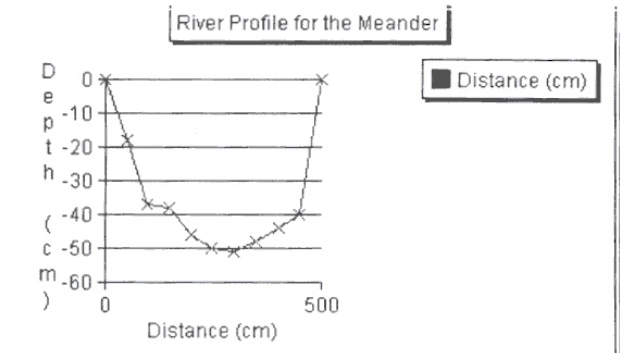
Samples of Work on the Rainforest Undertaken by Year 6 Pupils at Bromswold Junior School

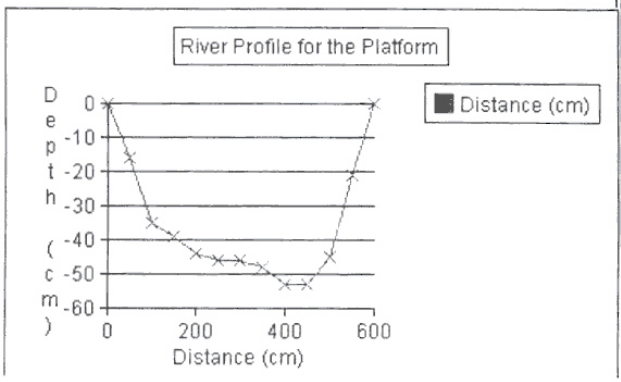




Why do the two graphs look different ?

Although these graphs look similar they are not the sort of answer we expected. The meander was fairly clean but the platform was slightly polluted . We investigated the animals to determin how clean the water was





Why do the two graphs look different ?

These results are not what we expected, because by the platform we would have expected uniform erosion (the same all across) and on the meander we would have expected completely the opposite results. In The Water Pollution Test the Meander came out as fairly clean and the platform as slightly polluted.

Studies along the Glaven

We studied the River Glaven to find its dimensions, flow speed and purity. First standing in the river we took a tape measure from one side to the other. Then every 50 metre measured down to the river bed and recorded our results. We measured the flow speed by timing how long it took for different objects to travel by river for 10m. Of a grapefruit, pung-pong ball and water bottle the latter was more reliable. The grapefruit sat too low down in the water; the ping pong ball was too light and was affected by the wind whilst the bottle could be half filled with a set amount of liquid.

[redacted]

Work was overwritten by author of thesis for clarity.

THE RAINFORESTS OF SOUTH AMERICA

The Amazon jungle is the largest tropical Rainforest in the world. It stretches for 2½ million square miles. This is almost an area the size of the U.S.A.

Every year an area about the size of Great Britain is destroyed. Man uses the timber for furniture, houses, paper etc. Sometimes the space is used for cattle breeding or crops, but the trees do not grow again.

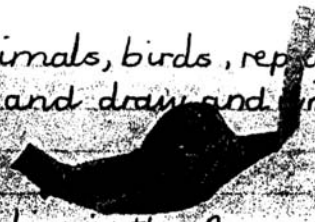
ASSIGNMENT 1

You will have two weeks for this assignment. It must have a front cover, an index or contents page. It should be a mixture of writing and illustrations. You should cover each of the following areas using the headings I have given you as the titles. You may do them in any order.

THE RAINFORESTS - map showing rainforest, Amazon River, Brazil, Peru, Oceans. Explanation of what a rainforest is and why it is important. Brief introduction to what can be found in a rainforest.

RAINFORESTS CREATURES

Choose some of the wonderful animals, birds, reptiles, fish, insects etc which live there and draw and write about them.



RAINFORESTS PEOPLE

Find out about the tribes which live in the Amazon Rainforest. Discover how they dress, what they eat and how they use the forest but also look after it.

RAINFORESTS IN DANGER

Find out why the Rainforests are being destroyed and why this is dangerous. How can people help to save them?

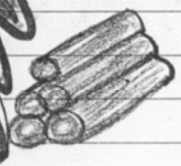
Raingorests in Danger

The raingorests provide us With many usegul products.

The native people Who live in the raingorest have learned how to make the best use of the natural resources available to them grom the raingorest. They take no more grom the gorest, than the gorest can replace.

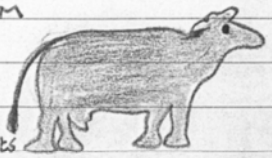
Outsiders Who do not know or understand the raingorest like the native people exploit it to make Mone gor themselves and end up destroying it.

The raingorests are destroyed by:



Logging – the trees in the raingorest are cut down gor Wood to Make teak, Mahogany and ebony gurniture. The trees cut down in large numbers but

Ranching – Many raingorest trees are cut down to make room gor cattle ranches.



Mining – Many raingorests are rich in Minerals such as Sliver, Copper and gold. Trees are cleared to mine. This leads to Soil erosion and the rivers become polluted.

Housing – Workers grom outside areas Come to Work in the raingorest. Trees are destroyed to build houses gor them.


DESTROYING THE
10% by Housing
10% by Mining
20% by ranching
60% by logging
RAIN FORESTS.
✓ This is a v. good and simple way of showing the problems

Appendix 5

Schemes of Work

Key Stage 2 Scheme of Work Bournevale Church of England Primary School

Year 6 Scheme of Work Woodleys Junior School

Key Stage 3 Scheme of Work Appledown School

Year 7, First Term Scheme of Work, Hawkswell Comprehensive School

[redacted] School

Long Term Planning - Geography

Cycle 1	Autumn Term		Spring Term		Summer Term	
Years 1/2			1 Around our school - the local area		5 Where in the world is Barnaby bear?	2 How can we make our local area safer?
Years 3/4		7 Weather around the world			6 Investigating our local area.	
Years 5/6	11 Water		12 Should the high street be closed to traffic?		13 A contrasting UK locality - Llandudno	

Cycle 2	Autumn Term		Spring Term		Summer Term	
Years 1/2		3 An island home			5 Where in the world is Barnaby bear?	4 Going to the seaside
Years 3/4	10 A village in India		9 Village settlers		8 Improving the environment	
Years 5/6	15 The mountain environment				14 Investigating rivers	

CONTRASTING OVERSEAS LOCALITY

YEAR 6 AUTUMN TERM

Resources: BBC video Pakistan, globe, world map, atlases, Pakistani artefacts, Encarta c.d.rom

Opportunities for I.T.: research from c.d.rom, research from internet, e-mail with places in Pakistan

Key Vocabulary: Pakistan continent country capital city town village suburb border characteristic history farming economy industry electricity Hydro Electric Power HEP weather climate shopping compare contrast similarity difference physical human valley education employment aspect source primary secondary environment factory benefit activities residents facilities proposal positive negative benefit drawback interpret irrigation channels technology Gross National Product GNP debts population location

P.O.S.	Learning objectives	Suggested learning activities
3c make maps and plans 3d use and interpret maps and plans	To know where Pakistan is. To be able to use an atlas independently.	Where is Pakistan? Locate continent and country using an atlas. Draw a map identifying capital and main towns and cities using a key.
2a ask questions	To understand that geographical information/evidence can be subjective To be able to ask appropriate questions in order to gain a more objective view.	Initial brainstorm – what do you know/your ideas about Pakistan – where did you get your information? Is it objective or subjective? What would you like to find out?
1a widening range of scales 1d wider context 3e use secondary sources	To be able to identify the geographical characteristics which are features of Pakistan.	Watch BBC video programme one, an introduction to Pakistan. Make notes under these headings: history, farming, industry, weather, electricity, shopping. Groups to put this information into a chart or diagram – share and expand as a class. Make comparisons under each heading with the U.K.
2c analyse evidence, draw conclusions, communicate findings 3e use secondary sources 5a main physical and human features 5c how features influence human activity	To have a broad understanding of the environment in the Swat valley and the activities which that environment permits.	Watch BBC video programme two the Swat Valley. Groups to make detailed notes about one aspect of the video: farming, school, employment, family life at home. Carry out additional research using books, internet etc. Each group to produce a drama, report or formal presentation for the rest of the class.
5a main physical and human features 5b similarities and differences 5c how features influence human activity	To be able to compare everyday life in different places. To recognise that living in any area has benefits and drawbacks.	Watch BBC video programme three. Work in pairs imagining one lives in Maraka and one in and English village. Write letters to each other about their lives covering the key points.

5d recent or proposed changes	To be able to understand changes from a variety of points of view.	Have a class debate. Some pupils to act as a company wanting to build a new factory in Maraka, others to be Pakistani government officials, others Maraka residents, others from Oxfam or equivalent. How will everyone react?
1b studies which focus on geographical questions 3a use appropriate vocabulary 3e use secondary sources 5a main physical and human features 5c how features influence human activities 5e broader geographical context	To understand the importance of water to the people of Pakistan.	In groups, construct a model of the irrigation system which can be opened and closed to allow water in to irrigate the fields. Carry out research into HEP. Why has it been so successful in countries such as Pakistan?
2a observe and ask questions 2b collect and record evidence 3b undertake fieldwork 3e use secondary sources 3f use I.T. 5b similarities and differences 5e broader geographical context	To be able to collect and record appropriate evidence from a variety of sources and present it in an alternative way. To be able to use appropriate field techniques (questionnaires) as accurately as possible.	Watch BBC video programme four – a family in Lahore. Make notes in order to produce an interview. Work in threes: interviewer, parent of Lahore family, parent in a smart Birmingham suburb (invite in a guest for research). Tape record the interviews and produce a transcription along with maps and pictures.
1d wider geographical context 2c analyse evidence, draw conclusions, communicate findings 5a main physical and human features 5c how features influence human activities	To know the main physical and human characteristics of Pakistan. To be able to organise information and present it in and interesting and informative way.	Pupils to plan and construct their own wall display reflecting all aspects of the topic using pieces of their own work, posters, photographs, artefacts etc. Discuss what the work shows and offer an explanation of the work to an invited guest or another teacher.

1998/9	KS3 SCHEMES OF WORK				GEOGRAPHY	
YEAR	Autumn Term		Spring Term		Summer Term	
Year 7 Oxford Geography Foundations	DISCOVERING GEOGRAPHY Local Area: King's Heath Mapwork Atlas	HAVE WHEELS WILL TRAVEL	OUR HOME OUR REGION →		CHANGING RURAL SCENES: Farming: Link to farming visit TANWORTH IN ARDEN - Farm Visit	NOW OVER TO THE WEATHER CENTRE How human activity is affected by weather and climate e.g. TOURISM
Year 8 Oxford Geography Connections	OUR COUNTRY • Mapping • Industry Link to Bristol Visit.	THE RESTLESS EARTH - Volcanoes and earthquakes (A Hazard and a Resource)	EUROVISION CONTEST • E.U. • Italy	ECOSYSTEMS Tropical Rain Forest Savanna Grasslands or Coniferous Forests	SETTLEMENTS	MANAGING ENVIRONMENTS • National Parks • Quarrying • Irrigation Schemes
Year 9 Interactions	POPULATION & RESOURCES Population Distribution Growth, Migration, Resources - renewable and non-renewable.	WATER, WATER EVERYWHERE • Coasts • People's management of coasts	NUTS ABOUT BRAZIL	FRAGILE ENVIRONMENTS	LAND OF THE RISING SUN. (Japan)	IMPACT AND RESPONSIBILITY FOR THE ENVIRONMENT Sustainable Development Planned Stewardship

Scheme of Work:	Geography Y7

Theme:	The Local Area / Map Reading Skills

Key Ideas/concepts
Awareness of plan; spatial layout
Scale
Direction
Grid References
People affect their environment

Values/Attitudes:
Awareness and appreciation of the local environment

Links within Geography:
Environments; issues

X-Curricula Links
Maths - measurement and scale

Tasks/Activities:	Time:	Assessment	Notes	Resources:
1. Rules of Geography. Standards, expectations, mark scheme.				Rules sheet/mark scheme - stick in books
2. Drawing maps: Title, Key, Symbols, Colour - pencils! (scale, compass point).	1/2 lessons			Sheets: the Picture and the map Hamwell Village "Maps and Mapping"
3. Plan of the Classroom Homework: Draw a map/plan of your bedroom	1 lesson			
4. Coundon Court Trail Follow trail and write up answers. Homework Draw a map of your route to school	2/3 lessons + homework			Trail guides, maps, follow up sheets 1:10000 school site plan.
5. Coundon Wedge Environmental Survey. Fieldwork and write up	4 lessons + homework			Map, survey sheets
6. Land Use Map - school Area Terms/categories: Residential, Industrial, Agricultural, Recreational, Religions, Public Buildings	1 lesson + homework			Maps
7. Distance and Direction on maps.	2 lessons	1. Distance and direction		"Foundations", Maps and Mapping" worksheets
8, Map reading skills, including 4 + 6 figure gird references	6 lessons	2. Map Reading Skills		Various worksheets. "Foundations" "Maps and Mapping" 1:50000 O.S. maps.

Appendix 6

Record of Assessment Spanoak Primary School

Whole Class Record of Level of Achievement in Geography Sheet 2. Year

KEY TO COMPLETION OF CLASS RECORD:

*	exceeded expectations
R	needs repeating
∞	achieved, but needs to be revisited
△	admitted
A	absent

National Curriculum References																						
Name	Shows knowledge, skills & understanding in studies of a range of places & environments at more than one scale & in different parts of the world.	Begins to recognise & describe geographical patterns & to appreciate the importance of wider geographical location in understanding places.	Recognises & describes physical & human processes.	Begins to understand how these can change the features of places, & how these changes affect the lives & activities of people living there.	Understands how people can both improve & damage the environment.	Explains their own views and the views that other people hold about an environment change.	Drawing on their knowledge & understanding, suggests suitable geographical questions & uses a range of geographical skills to help investigate places & environments.	Uses primary & secondary sources of evidence in investigations & communicates their finding using appropriate vocabulary.	Describes how physical & human processes can lead to similarities & differences in the environments of different places & in the lives of people who live there.	Recognises some of the links & relationships that makes places dependent on each other.	Suggests explanations for the ways in which human activities cause changes to the environment & the different views people hold about them.	Recognises how people try to mange environments sustainably.	Explains their own views & begins to suggest relevant geographical questions & issues.	Selects information & sources of evidence, suggests plausible conclusions to their investigations & presents finding both as a graph & in writing.	Describes & explains a range of physical & human processes & recognises that these processes interact to produce the distinctive characteristics of places.	Describes ways in which physical & human processes operate at different scales creating geographical patterns & leading to changes in places.	Appreciates that many links & relationships that make places dependant on each other.	Recognises how conflicting demands on the environment may arise & describes & compares different approaches to managing environments.	Appreciates that different values & attitudes, including their own result in different approaches that have different effects on people & places.	Draws on knowledge & understanding, suggests relevant geog. ?s & issues & appropriate sequences of investigation.	Selects a range of skills & sources of evidence & uses them effectively for investigations.	Presents findings in a coherent way & reaches conclusions, consistent with evidence.

Appendix 7

Tillbrook Summer School Programme of Activities

Tillbrook Summer School 'Our Charwell' Programme of Activities

Monday
9.30 Welcome/Register/Ice Breaker- questionnaire

9.50 Using cartoons/pictures from comics and magazines, pupils work in pairs to describe the picture to their partner, who then tries to replicate the drawing from its description. The aim is to get pupils thinking about adjectives. Think about words/adjectives that describe Charwell to us. Brainstorm several, then get students to think of their own, write them down and stick on Word Wall. Divide word wall into two halves – nouns and adjectives.

10.00 Use ideas from word wall to construct mind map –what does Charwell mean to me?

10.20 Prepare pupils for visit to Charwell sites.

10.30 Leave school and travel by bus to city centre. Walking tour of city centre, complete Town Trail as we walk.

27. Lunch

1.00 Catch Guide Friday Charwell Tour. Tour takes 90 minutes and includes most city center sites. During tour pupils complete activities/questions which focus on the attractions visited.

2.30 Bus back to school. Learning logs completed. Awards/rosettes for the day.

3.00 Close. Overnight complete a glossary of key words from the day which will be useful when they start writing up material.

Tuesday

9.30 Welcome/register/Ice Breaker

9.45 Reflection on Monday. Add to word wall and mind map started yesterday. Use writing frame to complete favourite part of the trip and why.

Word ladder. Choose 10 words from the word wall/mind map that you have trouble spelling, write them in your learning log. Write your name on a post it and place it on the spelling ladder at the point that indicated how many of the 10 words you think you can spell.

Go through a spelling strategy eg Look, cover, write, check. Ask pupils to use this when they start their written work about Charwell.

11.00 Using material gathered yesterday, split into groups and start to work on material for the book. Groups to include poetry, report, map of attractions, describing photographs, diary, research, internet, books, brochures.

12,00 Individual groups report back to everyone else.

12.15 Lunch

12.45 Using material worked on this morning, swap work with a writing partner and correct/edit each other's work. Redraft own work.

1.45 Report back to other groups

2.00 Spelling rounders; using some of the words from the Mind map and word wall

2.30 Spelling strategy – using mnemonics. Move your post it on the spelling ladder.

2.45 Reflection, learning logs, game to close.

Wednesday

9.30 Welcome/register ice breaker

9.45 Moving on Up folder – work on different perspectives and opinions of Charwell. Use the peer tutors to act out role plays of different characters that have moved to Charwell. As a group, pupils brainstorm the questions they would ask the characters, thinking very carefully about the type of language they should use.

11.00 What doe we think of Charwell? What are best and worst bits? Undertake a creative writing report/account. How do the pupil views differ from those of parents? Get them to take home a question sheet and ask their parents to fill it in.

12.45 Lunch

1.1.5 E-mail interviews. Pupils given e-mail addresses of people who have lived somewhere other than Charwell. Design questions which they e-mail to their e-mail buddy to be answered overnight.

2.00 Word structure relay; prefix, root, suffix.

2.20 Parent/community interviews with volunteers regarding their experiences when they first arrived in Charwell.

2.45 Learning logs, reflection, game to close.

Thursday

9.30 Welcome/register/ice breaker

9.45 Charwell texts. Correct the mistakes. Present to other groups, coded with musical instruments, so one member of the group reads the passage, and when there has been a grammatical mistake in the text, a particular sound is made. Other groups have to identify which instruments have been used for each grammatical mistake.

10.15 Collect e-mail interview replies in groups. Read through and then report to other groups. Work on interview materials and write up reports for book. Pupils can choose the style that they want to present their interview, for example as a story (with a factual base), a poem, a story board, newspaper report.

11.15 Using material gathered on Monday, split into groups and carry on working on material for the book. This will be a different activity from Tuesday (one of poetry, report, map of attractions, describing photographs, diary, research)

12.15 Game: Give us a clue using the adjectives form the word wall.

12.30 Lunch

1.0 Groups/individuals working on materials already started for the book.

2.00 Short game followed by carrying on with materials for book

2.35 Reflection, learning logs game.

Friday

9.30 Register/welcome/ice breaker

9.45 Library service visit and tell pupils about and register them for ‘Reading Safari’. Information on other activities in local libraries over the rest of the holiday.

Pupils feedback their week’s work to library staff.

Finish off all work for book/display

Put display of work together.

12.30 Lunch

Invited guests (parents, community leaders, teachers) attend afternoon session where pupils read out/perform poetry, written work, act out role plays and show work on display from the week’s activities.

Appendix 8

Primary Questionnaire Data

Geographical Skills - Bridgewood

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Make plans and maps at variety of scales using symbols and keys	1								1	1	1	7			2	1
Understand how to use and give four figure grid references	2			1		1						1	2	1	1	5
Be able to measure direction and distance	3	1		3	2							3			1	1
Using a contents and index page of an atlas	1		1						1			7	2		1	1
Be able to use 1:50,000 OS Map	4				3							1		2	2	2
Be able to use 1:25,000 OS Map	4	1		1	4	1								1		3
Understand how to use and give six figure grid references	6			1	5											2
How to draw an annotated sketch map from an OS Map	10	1			1									1		1
How to draw cross-sections from OS Maps	10				3									1		
Use graphs to present geographical information	2				2				2			5		1	1	1
Locate places in an atlas									1			11			2	

Geographical Skills - Year Totals Bridgewood

	NC	Yr 3	Yr 4	Yr 5	Yr 6
Make plans and maps at variety of scales using symbols and keys	1	10	11	12	12
Understand how to use and give four figure grid references	2	2	6	10	8
Be able to measure direction and distance	3	4	4	8	7
Using a contents and index page of an atlas	1	8	12	12	9
Be able to use 1:50,000 OS Map	4	1	5	5	10
Be able to use 1:25,000 OS Map	4	2	2	4	8
Understand how to use and give six figure grid references	6	0	0	3	7
How to draw an annotated sketch map from an OS Map	10	1	1	1	3
How to draw cross-sections from OS Maps	10	0	1	0	4
Use graphs to present geographical information	2	7	9	9	10
Locate places in an atlas		12	14	14	13

Geographical Skills - Greendale

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Make plans and maps at variety of scales using symbols and keys	1	2	1	1		1		2		1	1	19		1	4	1
Understand how to use and give four figure grid references	1	1	2	4	4	3	1	1		1		4	1		5	7
Be able to measure direction and distance	4	1	2	1	6					1		6	1		7	6
Using a contents and index page of an atlas	2	2	1	2		6				1		18	1			2
Be able to use 1:50,000 OS Map	7			3	8	1				1		3	1		4	7
Be able to use 1:25,000 OS Map	5	1	1	3	7	1				1		2	2		2	10
Understand how to use and give six figure grid references	4			1	17										2	11
How to draw an annotated sketch map from an OS Map	19			1	9										1	5
How to draw cross-sections from OS Maps	26			1	5										1	2
Use graphs to present geographical information	9		1		2	1						14	1		4	3
Locate places in an atlas		1		1		2						29	1		1	

Geographical Skills - Year Totals Greendale

	NC	Yr 3	Yr 4	Yr 5	Yr 6
Make plans and maps at variety of scales using symbols and keys	1	26	27	26	29
Understand how to use and give four figure grid references	1	11	16	22	22
Be able to measure direction and distance	4	8	17	21	26
Using a contents and index page of an atlas	2	27	27	23	21
Be able to use 1:50,000 OS Map	7	5	10	18	23
Be able to use 1:25,000 OS Map	5	5	9	19	22
Understand how to use and give six figure grid references	4	0	2	14	30
How to draw an annotated sketch map from an OS Map	19	0	1	7	15
How to draw cross-sections from OS Maps	26	0	1	4	8
Use graphs to present geographical information	9	15	21	22	23
Locate places in an atlas		32	33	32	30

Geographical Skills -Charwell

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Make plans and maps at variety of scales using symbols and keys	2	5		1		2	2			1	1	38	1	1	3	2
Understand how to use and give four figure grid references	3		5	6	12	2	1					4	1	1	6	18
Be able to measure direction and distance	10	1	3	7	12	1			1			6	1		4	13
Using a contents and index page of an atlas	1	7	3	2		5	2	1				27	4		5	2
Be able to use 1:50,000 OS Map	8	2	3	3	14		1				2	4			3	19
Be able to use 1:25,000 OS Map	7	2	3	4	14		2				1	3			3	20
Understand how to use and give six figure grid references	21				29											9
How to draw an annotated sketch map from an OS Map	38		1	3	12		1									4
How to draw cross-sections from OS Maps	50			1	8											
Use graphs to present geographical information	10	4	2	3	5		1		1			25	3		3	2
Locate places in an atlas	1	3	1	3		2				1		43			1	3

Geographical Skills - Year Totals Charwell

	NC	Yr 3	Yr 4	Yr 5	Yr 6
Make plans and maps at variety of scales using symbols and keys	2	49	46	48	46
Understand how to use and give four figure grid references	3	7	19	36	41
Be able to measure direction and distance	10	9	16	32	35
Using a contents and index page of an atlas	1	42	44	42	35
Be able to use 1:50,000 OS Map	8	9	10	32	42
Be able to use 1:25,000 OS Map	7	8	9	33	41
Understand how to use and give six figure grid references	21	0	0	9	38
How to draw an annotated sketch map from an OS Map	38	1	1	8	16
How to draw cross-sections from OS Maps	50	0	0	1	8
Use graphs to present geographical information	10	31	34	38	35
Locate places in an atlas	1	49	48	50	48

Geographical Skills - Oakleigh

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Make plans and maps at variety of scales using symbols and keys	1		1		1	1					1	11		1	1	1
Understand how to use and give four figure grid references	1		3	1	3	1							2		2	6
Be able to measure direction and distance	3		1	1	3	1						1			3	6
Using a contents and index page of an atlas		4	1			1			1			9			1	2
Be able to use 1:50,000 OS Map	3		2		5	1					1	1				6
Be able to use 1:25,000 OS Map	4		1		6						1	1				6
Understand how to use and give six figure grid references	9				6											4
How to draw an annotated sketch map from an OS Map	12				3											4
How to draw cross-sections from OS Maps	17				2											
Use graphs to present geographical information	5				3							8		1		2
Locate places in an atlas		1				1						16				1

Geographical Skills - Year Totals Oakleigh

	NC	Yr 3	Yr 4	Yr 5	Yr 6
Make plans and maps at variety of scales using symbols and keys	1	13	15	14	16
Understand how to use and give four figure grid references	1	1	8	11	11
Be able to measure direction and distance	3	2	6	11	13
Using a contents and index page of an atlas		15	13	13	12
Be able to use 1:50,000 OS Map	3	3	4	8	13
Be able to use 1:25,000 OS Map	4	2	2	8	14
Understand how to use and give six figure grid references	9	0	0	4	10
How to draw an annotated sketch map from an OS Map	12	0	0	4	7
How to draw cross-sections from OS Maps	17	0	0	0	2
Use graphs to present geographical information	5	8	9	10	14
Locate places in an atlas		18	17	17	17

Geographical Skills -Regional Totals

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Make plans and maps at variety of scales using symbols and keys	5	7	2	2	1	4	2	2	1	3	4	75	1	3	10	5
Understand how to use and give four figure grid references	7	1	10	12	19	7	2	1	0	1	0	9	6	2	14	36
Be able to measure direction and distance	20	3	6	12	23	2	0	0	1	1	0	16	2	0	15	26
Using a contents and index page of an atlas	4	13	6	4	0	12	2	1	2	1	0	61	7	0	7	7
Be able to use 1:50,000 OS Map	22	2	5	6	30	2	1	0	0	1	3	9	1	2	9	34
Be able to use 1:25,000 OS Map	20	4	5	8	31	2	2	0	0	1	2	6	2	1	5	39
Understand how to use and give six figure grid references	40	0	0	2	57	0	0	0	0	0	0	0	0	0	2	26
How to draw an annotated sketch map from an OS Map	79	1	1	4	25	0	1	0	0	0	0	0	0	1	1	14
How to draw cross-sections from OS Maps	103	0	0	2	18	0	0	0	0	0	0	0	0	1	1	2
Use graphs to present geographical information	26	4	3	3	12	1	1	0	3	0	0	52	4	2	8	8
Locate places in an atlas	1	5	1	4	0	5	0	0	1	1	0	99	1	0	4	4

Geographical Skills - Regional Year Totals

	NC	Yr 3	Yr 4	Yr 5	Yr 6
Make plans and maps at variety of scales using symbols and keys	5	98	99	100	103
Understand how to use and give four figure grid references	7	21	49	79	82
Be able to measure direction and distance	20	23	43	72	81
Using a contents and index page of an atlas	4	92	96	90	77
Be able to use 1:50,000 OS Map	22	18	29	63	88
Be able to use 1:25,000 OS Map	20	17	22	64	85
Understand how to use and give six figure grid references	40	0	2	30	85
How to draw an annotated sketch map from an OS Map	79	2	3	20	41
How to draw cross-sections from OS Maps	103	0	2	5	22
Use graphs to present geographical information	26	61	73	79	82
Locate places in an atlas	1	11 1	112	113	108

Places - Bridgewood

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Study of local area of the school		5			1	1	4							1		2
Study of locality elsewhere in UK	1		6	3	2	2										
Study of locality in a developing country	1	1	2	3	1	3	1	1					1			
Study of developed country outside UK	5		3	2	1							1		1		1
Study of a developing country	7	1	1	1	3							1				

Places - Year Totals Bridgewood

	NC	Yr 3	Yr 4	Yr 5	Yr 6
Study of local area of the school		10	2	6	4
Study of locality elsewhere in UK	1	2	8	3	2
Study of locality in a developing country	1	6	6	5	2
Study of developed country outside UK	5	1	5	4	4
Study of a developing country	7	2	2	2	4

Places - Greendale

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Study of local area of the school		8	1		1	12	2	3	1		1	5				1
Study of locality elsewhere in UK	3	1	6	6	3	1					1	7	2			5
Study of locality in a developing country	3	1	2	8	6	2		1				3	1		1	7
Study of developed country outside UK	20		1	2	6							2				4
Study of a developing country	18		1	3	7		1									5

Places - Year Totals Greendale

	NC	Yr 3	Yr 4	Yr 5	Yr 6
Study of local area of the school		32	19	10	11
Study of locality elsewhere in UK	3	10	16	21	16
Study of locality in a developing country	3	7	9	20	18
Study of developed country outside UK	20	2	3	8	12
Study of a developing country	18	1	1	9	12

Places - Charwell

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Study of local area of the school		16	2	1	4	5	5	4		1	3	13	1	2		2
Study of locality elsewhere in UK	3	7	10	13	7	3	1	3			1	3	2	3	1	3
Study of locality in a developing country	2	3	16	11	9	4	1				1	3	1	4	2	2
Study of developed country outside UK	23		6	11	13		1	2				1		1		1
Study of a developing country	34		5	8	9											3

Places - Year Totals Charwell

	NC	Yr 3	Yr 4	Yr 5	Yr 6
Study of local area of the school		47	24	25	29
Study of locality elsewhere in UK	3	18	22	24	21
Study of locality in a developing country	2	12	30	21	21
Study of developed country outside UK	23	4	8	14	18
Study of a developing country	34	0	5	11	12

Places - Oakleigh

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Study of local area of the school		7	1		2	6		1				2				
Study of locality elsewhere in UK	1	1	4	3	1	2		1				3	1			2
Study of locality in a developing country		1	2	4		2		2				2		1	1	4
Study of developed country outside UK	13	1	1	1	2											1
Study of a developing country	13		1		1	1	1					1			1	

Places - Year Totals Oakleigh

	NC	Yr 3	Yr 4	Yr 5	Yr 6
Study of local area of the school		16	9	2	5
Study of locality elsewhere in UK	1	7	10	9	7
Study of locality in a developing country		7	8	11	10
Study of developed country outside UK	13	1	1	2	3
Study of a developing country	13	3	4	3	3

Places - Regional Totals

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Study of local area of the school	0	36	4	1	8	24	11	8	1	1	4	20	1	3	0	5
Study of locality elsewhere in UK	8	9	26	25	13	8	1	4	0	0	2	13	5	3	1	10
Study of locality in a developing country	6	6	22	26	16	11	2	4	0	0	1	8	3	5	4	13
Study of developed country outside UK	61	1	11	16	22	0	1	2	0	0	0	4	0	2	0	7
Study of a developing country	72	1	8	12	20	1	2	0	0	0	0	2	0	0	1	8

Places -Regional Year Totals

	NC	Yr 3	Yr 4	Yr 5	Yr 6
Study of local area of the school	0	10 5	54	43	49
Study of locality elsewhere in UK	8	37	56	57	46
Study of locality in a developing country	6	32	53	57	51
Study of developed country outside UK	61	8	17	28	37
Study of a developing country	72	6	12	25	31

Rivers - Bridgewood

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How rivers erode,transport and deposit material		1	3	2	5					1						2
Landforms associated with river channels	2	1	3	3	3											2
The water cycle	2	1	3	1	2			1								4
The drainage basin system	4	1	1	3	3											2
Causes and effects of river floods	4	1	1	2	4											2

Rivers - Year Totals Bridgewood

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How rivers erode,transport and deposit material		2	4	4	8
Landforms associated with river channels	2	1	3	5	5
The water cycle	2	2	3	5	7
The drainage basin system	4	1	1	5	5
Causes and effects of river floods	4	1	1	4	6

Rivers - Greendale

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How rivers erode,transport and deposit material	3	2	3	5	9	4		1				2				6
Landforms associated with river channels	9	1	4	4	8	2		1				1				5
The water cycle	1	5	5	3	5	4		1	1		1	4	1	1	1	2
The drainage basin system	18	1	3	4	5	1										3
Causes and effects of river floods	9	1	4	5	9	3										4

Rivers - Year Totals Greendale

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How rivers erode,transport and deposit material	3	9	9	13	18
Landforms associated with river channels	9	5	7	10	15
The water cycle	1	16	17	13	15
The drainage basin system	18	2	4	7	8
Causes and effects of river floods	9	4	7	9	13

Rivers - Charwell

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How rivers erode,transport and deposit material	1	4	11	20	15	3					1			1		3
Landforms associated with river channels	6	5	10	15	17	2								1		3
The water cycle	4	8	5	12	3	6	3	3	1		1	3	1	5		4
The drainage basin system	22	1	7	11	11	3					1		2			1
Causes and effects of river floods	13	2	7	13	17	2							1	1	2	1

Rivers - Year Totals Charwell

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How rivers erode,transport and deposit material	1	8	15	24	20
Landforms associated with river channels	6	7	13	18	21
The water cycle	4	25	21	25	19
The drainage basin system	22	5	12	15	13
Causes and effects of river floods	13	4	13	17	21

Rivers - Oakleigh

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How rivers erode,transport and deposit material	1	1		5	4	1	1					1		1		4
Landforms associated with river channels	5	1		4	3		1									5
The water cycle	2	1		2	2		2	2				1	2	1		4
The drainage basin system	9	1		3	3											3
Causes and effects of river floods	4	1		4	6		1									3

Rivers - Year Totals Oakleigh

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How rivers erode,transport and deposit material	1	4	3	11	10
Landforms associated with river channels	5	2	0	10	8
The water cycle	2	6	4	11	10
The drainage basin system	9	1	0	6	6
Causes and effects of river floods	4	2	0	8	9

Rivers -Regional Totals

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How rivers erode,transport and deposit material	5	8	17	32	33	8	1	1	0	1	1	3	0	2	0	15
Landforms associated with river channels	22	8	17	26	31	4	1	1	0	0	0	1	0	1	0	15
The water cycle	9	15	13	18	12	10	5	7	2	0	2	8	4	7	1	14
The drainage basin system	53	4	11	21	22	4	0	0	0	0	1	0	2	0	0	9
Causes and effects of river floods	30	5	12	24	36	5	1	0	0	0	0	0	1	1	2	10

Rivers - Regional Year Totals

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How rivers erode,transport and deposit material	5	23	31	52	56
Landforms associated with river channels	22	15	23	43	49
The water cycle	9	49	45	54	51
The drainage basin system	53	9	17	33	32
Causes and effects of river floods	30	11	21	38	49

Weather -Bridgewood

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How site conditions influence weather	4	3	2	1	2	1										1
Seasonal weather patterns	2	4	4	2		1						1				
How weather and climate differ	3	3	3	2		1	1									1

Weather - Bridgewood Year Totals

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How site conditions influence weather	4	4	3	2	3
Seasonal weather patterns	2	6	6	3	1
How weather and climate differ	3	5	4	4	1

Weather -Greendale

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How site conditions influence weather	6	6	6	3	3	3	1					3			1	3
Seasonal weather patterns	2	4	5	4	2	7	1					5	1			4
How weather and climate differ	3	2	4	7	1	4						2	1	1	2	8

Weather - Greendale Year Totals

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How site conditions influence weather	6	13	13	11	10
Seasonal weather patterns	2	17	18	15	11
How weather and climate differ	3	8	14	20	14

Weather -Charwell

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How site conditions influence weather	11	8	9	11	8	3	1	1			1	1	3	1		1
Seasonal weather patterns		21	10	9	3	5	2	1		1	1	4	2			
How weather and climate differ	3	11	10	14	6	2	2				1	3	4	1	1	1

Weather - CharwellYear Totals

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How site conditions influence weather	11	15	17	18	13
Seasonal weather patterns		35	22	18	10
How weather and climate differ	3	19	21	26	13

Weather -Oakleigh

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How site conditions influence weather	5	5	1	3	1	3							1			
Seasonal weather patterns	2	6	3	3	1	2						1				1
How weather and climate differ	4	2	3	3		2						1	1			3

Weather - Oakleigh Year Totals

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How site conditions influence weather	5	8	5	4	1
Seasonal weather patterns	2	9	6	5	3
How weather and climate differ	4	5	7	8	4

Weather - Regional Totals

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How site conditions influence weather	26	22	18	18	14	10	2	1	0	0	1	4	4	1	1	5
Seasonal weather patterns	6	35	22	18	6	15	3	1	0	1	1	11	3	0	0	5
How weather and climate differ	13	18	20	26	7	9	3	0	0	0	1	6	6	2	3	13

Weather - Regional Year Totals

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How site conditions influence weather	26	40	38	35	27
Seasonal weather patterns	6	67	52	41	25
How weather and climate differ	13	37	46	58	32

Tectonic Processes - Bridgewood

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Processes associated with movement of tectonic plates	1			1	2											
The causes and effects of earthquakes	1			2	1											
The causes and effects of volcanic eruptions	1			2	1											

NB Only 4 schools covered this topic

Tectonic Processes - Greendale

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Processes associated with movement of tectonic plates	3		1	1	3	1										2
The causes and effects of earthquakes	2		1	2	2	1										3
The causes and effects of volcanic eruptions	3		1	2	2											3

NB Only 11 schools covered this topic

Tectonic Processes - Charwell

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Processes associated with movement of tectonic plates	6	1	2	2	7											
The causes and effects of earthquakes	4	1	2	2	7											2
The causes and effects of volcanic eruptions	1	1	3	3	8											2

NB Only 18 schools covered this topic

Tectonic Processes - Oakleigh

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Processes associated with movement of tectonic plates	2				1											
The causes and effects of earthquakes					3											
The causes and effects of volcanic eruptions					3											

NB Only 3 schools covered this topic

Tectonic Processes - Regional Totals

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Processes associated with movement of tectonic plates	12	1	3	4	13	1	0	0	0	0	0	0	0	0	0	2
The causes and effects of earthquakes	7	1	3	6	13	1	0	0	0	0	0	0	0	0	0	5
The causes and effects of volcanic eruptions	5	1	4	7	14	0	0	0	0	0	0	0	0	0	0	5

NB Only 36 schools covered this topic

Coasts -Bridgewood

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
The formation of coastal landforms	1				3	1										
Causes and effects of cliff collapse or coastal flooding	2				3											

NB Only 5 schools covered this topic

Coasts -Greendale

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
The formation of coastal landforms	1			3	4											1
Causes and effects of cliff collapse or coastal flooding	3			3	2											1

NB only 9 schools covered this topic

Coasts -Charwell

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
The formation of coastal landforms	3			2	5								1			
Causes and effects of cliff collapse or coastal flooding	2	1		2	4	1										1

NB Only 11 schools covered this topic

Coasts -Oakleigh

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
The formation of coastal landforms				2										1		3
Causes and effects of cliff collapse or coastal flooding	2			1	1	1										1

NB Only 6 schools covered this topic

Coasts -Regional Totals

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
The formation of coastal landforms	5	0	0	7	12	1	0	0	0	0	0	0	1	1	0	4
Causes and effects of cliff collapse or coastal flooding	9	1	0	6	10	2	0	0	0	0	0	0	0	0	0	3

NB Only 31 schools covered this topic

Ecosystems - Bridgewood

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
The characteristics and distribution of one type of vegetation		1	1		2	1	2									

NB Only 7 schools covered this topic

Ecosystems - Greendale

Year(s) covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
The characteristics and distribution of one type of vegetation				1	1	1									1	2

NB Only 6 schools covered this topic

Ecosystems - Charwell

Year(s) covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
The characteristics and distribution of one type of vegetation		5	3	4	6	1						1		1		4

NB Only 25 schools covered this topic

Ecosystems - Oakleigh

Year(s) covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
The characteristics and distribution of one type of vegetation			1	1	1											2

NB Only 5 schools covered this topic

Ecosystems - Regional Totals

Year(s) covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
The characteristics and distribution of one type of vegetation		6	5	6	10	3	2	0	0	0	0	1	0	1	1	8

NB Only 43 schools covered this topic

Settlements - Bridgewood

Year(s) covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
Settlements vary in size	2	1	1	1	2			1	2			4				
Settlements have different functions	1	1	2	1	3				2			4				
Conflicts over use of land in settlements	3	1	2	2				1	1			3		1		
Reasons for location and growth of settlements	2		1	2	2				1			3	2	1		
How types and variety of goods and services vary in settlements	4		2			2			1			2	1	1		1
Different types and patterns of urban land use	3		1	3	2	1			1			1		1		1

Settlements - Year Totals Bridgewood	**NC**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
Settlements vary in size	**2**	**8**	**7**	**7**	**7**
Settlements have different functions	1	7	8	7	7
Conflicts over use of land in settlements	3	6	7	6	5
Reasons for location and growth of settlements	2	4	8	8	6
How types and variety of goods and services vary in settlements	4	5	9	5	4
Different types and patterns of urban land use	3	3	5	6	5

Settlements - Greendale

Year(s) covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
Settlements vary in size	3	3	4	1	1	8		1			1	7	1		1	4
Settlements have different functions	3	3	5		1	5			1		1	5	2		1	8
Conflicts over use of land in settlements	3	1	2	1	7	4		2					1	1	2	10
Reasons for location and growth of settlements	5	2	2	1	1	6		2			1	5			3	7
How types and variety of goods and services vary in settlements	12	1	2	1	2	2			1			2		1	1	10
Different types and patterns of urban land use	10	1	2	1	3	2					2	2		2	1	9

Settlements - Year Totals Greendale	**NC**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
Settlements vary in size	**3**	**20**	**21**	**15**	**15**
Settlements have different functions	3	15	19	18	16
Conflicts over use of land in settlements	3	7	10	14	22
Reasons for location and growth of settlements	5	16	16	17	19
How types and variety of goods and services vary in settlements	12	6	9	15	16
Different types and patterns of urban land use	10	7	9	15	19

Settlements - Charwell

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Settlements vary in size	3	8	9	3	8	3	5	1		2	1	9	2	1	1	3
Settlements have different functions	6	4	12	3	7	2	5	3		1	1	6	2		2	5
Conflicts over use of land in settlements	12	2	7	7	13	1	1			1	1	2	1	2	5	4
Reasons for location and growth of settlements	7	3	10	5	7	1	3	1	1	2	1	7	1	2		9
How types and variety of goods and services vary in settlements	12	1	13	7	4	2		4		2		4	1	1	1	7
Different types and patterns of urban land use	17	2	3	3	10	2	1	1		2	1	3	1	4	4	5

Settlements - Year Totals Charwell	NC	Yr 3	Yr 4	Yr 5	Yr 6
Settlements vary in size	3	29	27	24	26
Settlements have different functions	6	22	25	24	25
Conflicts over use of land in settlements	12	8	19	21	28
Reasons for location and growth of settlements	7	19	24	27	29
How types and variety of goods and services vary in settlements	12	13	24	20	23
Different types and patterns of urban land use	17	12	19	18	30

Settlements - Oakleigh

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Settlements vary in size	4	1				3		2	1	1		4	1		2	
Settlements have different functions	5	1				2		2	1			5			1	2
Conflicts over use of land in settlements	4	1	2		2			1				5	2		1	1
Reasons for location and growth of settlements	4	1			1			1	1			6			1	4
How types and variety of goods and services vary in settlements	5	1						2	1	1		8			1	
Different types and patterns of urban land use	5	3			3	1		1		1		3			1	1

Settlements - Year Totals Oakleigh	NC	Yr 3	Yr 4	Yr 5	Yr 6
Settlements vary in size	4	12	12	8	9
Settlements have different functions	5	11	9	9	10
Conflicts over use of land in settlements	4	7	10	9	10
Reasons for location and growth of settlements	4	9	8	12	13
How types and variety of goods and services vary in settlements	5	13	11	10	12
Different types and patterns of urban land use	5	9	6	5	10

Settlements - Regional Totals

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Settlements vary in size	12	13	14	5	11	14	5	5	3	3	2	24	4	1	4	7
Settlements have different functions	15	9	19	4	11	9	5	5	4	1	2	20	4	0	4	15
Conflicts over use of land in settlements	22	5	13	10	22	5	1	4	1	1	1	10	4	4	8	15
Reasons for location and growth of settlements	18	6	13	8	11	7	3	4	3	2	2	21	3	3	4	20
How types and variety of goods and services vary in settlements	33	3	17	8	6	6	0	6	3	3	0	16	2	3	3	18
Different types and patterns of urban land use	35	6	6	7	18	6	1	2	1	3	3	9	1	7	6	16

Settlements - Regional Year Totals	NC	Yr 3	Yr 4	Yr 5	Yr 6
Settlements vary in size	12	69	67	54	57
Settlements have different functions	15	55	61	58	58
Conflicts over use of land in settlements	22	28	46	50	65
Reasons for location and growth of settlements	18	48	56	64	67
How types and variety of goods and services vary in settlements	33	37	53	50	55
Different types and patterns of urban land use	35	31	39	44	64

Environment - Bridgewood

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How people affect the environment	1	1			1		1	2	1			3	1		1	2
How people manage the environment	1			2	1	1	1		1			2	1	1		3
Unintended effects of managing the environment	6		1		3		1		1			1				1
Why areas are of great scenic attraction	7			2	1				1			2			1	
Conflicts arising from managing the environment	4				3				1			2	2			2
Provision of fresh water supply	6	1	1	1	2							1	1	1		
Causes,effects, and prevention of water pollution	2	2	2	2	3	1						1		1		
Provision of energy supply	8		1	1	2	1										1
Environmental effects of different energy sources	10			1	2							1				

Environment - Year Totals Bridgewood

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How people affect the environment	1	8	6	9	9
How people manage the environment	1	5	6	10	7
Unintended effects of managing the environment	6	3	3	4	5
Why areas are of great scenic attraction	7	3	4	6	4
Conflicts arising from managing the environment	4	3	5	7	7
Provision of fresh water supply	6	2	4	3	4
Causes,effects, and prevention of water pollution	2	4	5	3	5
Provision of energy supply	8	1	2	2	3
Environmental effects of different energy sources	10	1	1	2	3

Environment - Greendale

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How people affect the environment	3		2	1	9	1		1			1	8		1	1	7
How people manage the environment	5			1	8	1		1			1	3	1	2	2	10
Unintended effects of managing the environment	17			1	9			1				1				6
Why areas are of great scenic attraction	19			2	7											7
Conflicts arising from managing the environment	13		1	1	10					1						9
Provision of fresh water supply	20	1	2	3	2	1			1			1		3		1
Causes,effects, and prevention of water pollution	13	1	3	4	4	2		1	1			1		1		4
Provision of energy supply	26	1		2	3		1					1				1
Environmental effects of different energy sources	24	1		1	4		1									3

Environment - Year Totals Greendale

	NC	Yr 3	Yr 4	Yr 5	Yr 6
How people affect the environment	3	11	13	18	28
How people manage the environment	5	6	9	18	27
Unintended effects of managing the environment	17	2	1	8	17
Why areas are of great scenic attraction	19	0	0	9	14
Conflicts arising from managing the environment	13	1	2	10	20
Provision of fresh water supply	20	4	8	6	7
Causes,effects, and prevention of water pollution	13	6	8	10	11
Provision of energy supply	26	3	1	5	5
Environmental effects of different energy sources	24	2	0	5	7

Environment - Charwell

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
How people affect the environment		3	2	10	11	2	1		1		1	14	2	4	1	7
How people manage the environment	3	1	4	8	17		1	1	1		1	7	3	3	2	7
Unintended effects of managing the environment	23		2	5	15				1				1	3		9
Why areas are of great scenic attraction	35	1	1	8	6	2			1					2		3
Conflicts arising from managing the environment	22		2	8	12	1							1	2	1	10
Provision of fresh water supply	27	2	9	9	3		1					1	1	1	1	4
Causes,effects, and prevention of water pollution	13	3	9	10	10	2						1	1	2	2	6
Provision of energy supply	37		4	4	7										1	6
Environmental effects of different energy sources	39		2	5	9											4

Environment - Year Totals Charwell	**NC**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
How people affect the environment		22	26	37	38
How people manage the environment	3	12	20	30	38
Unintended effects of managing the environment	23	1	7	16	27
Why areas are of great scenic attraction	35	4	6	12	11
Conflicts arising from managing the environment	22	1	7	20	25
Provision of fresh water supply	27	4	13	17	10
Causes,effects, and prevention of water pollution	13	6	17	20	21
Provision of energy supply	37	0	5	11	14
Environmental effects of different energy sources	39	0	2	9	13

Environment - Oakleigh																
Year(s) covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
How people affect the environment	2	1	1		3	1			1			7	2			1
How people manage the environment	6	1	1		1	1						2	2			5
Unintended effects of managing the environment	10		1		2							1				5
Why areas are of great scenic attraction	7		2	3	2							2	1			2
Conflicts arising from managing the environment	9	1	1		3							1				4
Provision of fresh water supply	10			2	2		1				1					3
Causes,effects, and prevention of water pollution	11			2	4											2
Provision of energy supply	15				2			1								1
Environmental effects of different energy sources	17				1											1

Environment - Year Totals Oakleigh	**NC**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
How people affect the environment	2	10	12	11	11
How people manage the environment	6	4	6	9	8
Unintended effects of managing the environment	10	1	2	6	8
Why areas are of great scenic attraction	7	2	5	8	6
Conflicts arising from managing the environment	9	2	2	5	8
Provision of fresh water supply	10	2	0	7	6
Causes,effects, and prevention of water pollution	11	0	0	4	6
Provision of energy supply	15	1	0	1	4
Environmental effects of different energy sources	17	0	0	1	2

Environment - Regional Totals																
Year(s) covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
How people affect the environment	6	5	5	11	24	4	2	3	3	0	2	32	5	5	3	17
How people manage the environment	15	2	5	11	27	3	2	2	2	0	2	14	7	6	4	25
Unintended effects of managing the environment	56	0	4	6	29	0	1	1	2	0	0	3	1	3	0	21
Why areas are of great scenic attraction	68	1	3	15	16	2	0	0	2	0	0	4	1	2	1	12
Conflicts arising from managing the environment	48	1	4	9	28	1	0	0	1	1	0	3	3	2	1	25
Provision of fresh water supply	63	4	12	15	9	1	2	0	1	0	1	3	2	5	1	8
Causes,effects, and prevention of water pollution	39	6	14	18	21	5	0	1	1	0	0	3	1	4	2	12
Provision of energy supply	86	1	5	7	14	1	1	1	0	0	0	1	0	0	1	9
Environmental effects of different energy sources	90	1	2	7	16	0	1	0	0	0	0	1	0	0	0	8

Environment - Regional Year Totals	**NC**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
How people affect the environment	6	51	57	75	86
How people manage the environment	15	27	41	67	80
Unintended effects of managing the environment	56	7	13	34	57
Why areas are of great scenic attraction	68	9	15	35	35
Conflicts arising from managing the environment	48	7	16	42	60
Provision of fresh water supply	63	12	25	33	27
Causes,effects, and prevention of water pollution	39	16	30	37	43
Provision of energy supply	86	5	8	19	26
Environmental effects of different energy sources	90	3	3	17	25

Economic Activity - Bridgewood																
Year(s) covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
Difference between primary,secondary and tertiary	2		2													
Study one form of economic activity	1	1			1											1
The effects of changing distribution of this economic activity	4															

NB Only four schools covered this topic

Economic Activity - Greendale

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Difference between primary,secondary and tertiary	3	1	1		4											4
Study one form of economic activity	4		1	2	2							1				3
The effects of changing distribution of this economic activity	11		1													1

NB Only 13 schools covered this topic

Economic Activity - Charwell

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Difference between primary,secondary and tertiary	21		2	2	3										1	2
Study one form of economic activity	1	6	8	5	7	1		1			1	1				
The effects of changing distribution of this economic activity	19	1	1	2	3	1							1		2	1

NB Only 31 schools covered this topic

Economic Activity - Oakleigh

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Difference between primary,secondary and tertiary	4				2				1							
Study one form of economic activity	2		1		1							2				1
The effects of changing distribution of this economic activity	4		1		2											

NB Only 7 schools covered this topic

Economic Activity - Regional Totals

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Difference between primary,secondary and tertiary	30	1	5	2	9	0	0	0	1	0	0	0	0	0	1	6
Study one form of economic activity	8	7	10	7	11	1	0	1	0	0	1	4	0	0	0	5
The effects of changing distribution of this economic activity	38	1	3	2	5	1	0	0	0	0	0	0	1	0	2	2

NB Only 55 schools covered this topic

Development - Bridgewood

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Identify differences in development between countries		1		3		2		1						1	1	1
How differences in dvelopment affect the quality of life	3			2		2	1	1						1		

NB Only 10 schools covered this topic

Development - Greendale

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Identify differences in development between countries		1	1	4	3	1		1				1				3
How differences in dvelopment affect the quality of life	1	1	1	3	3	1						1			1	3

NB Only 15 schools covered this topic

Development - Charwell

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Identify differences in development between countries	5		9	3	7		1				1	5	1	1	3	4
How differences in dvelopment affect the quality of life	1		9	4	8	1	1				2	3	1	2	3	3

NB Only 38 schools covered this topic

Development - Oakleigh

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Identify differences in development between countries	1	1	1	1			1					3	1	1	3	
How differences in dvelopment affect the quality of life	2	1	1	1								2	2	1	3	

NB Only 13 schools covered this topic

Development - Regional Totals

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Identify differences in development between countries	6	3	11	11	10	3	2	2	0	0	1	9	2	3	7	8
How differences in dvelopment affect the quality of life	7	2	11	10	11	4	2	1	0	0	2	6	3	4	7	6

NB Only 76 schools covered this topic

Population - Bridgewood

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Global distribution of population	3			1												
Causes and effects of changes in population sizes	1				2											1
Causes and effects of migration	3		1													

NB Only 4 schools covered this topic

Population - Greendale

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Global distribution of population	1	1	1		2									1	1	1
Causes and effects of changes in population sizes	1	1	1		3									1		1
Causes and effects of migration	6	1												1		

NB Only 8 schools covered this topic

Population - Charwell

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Global distribution of population	8			1	7								1		1	
Causes and effects of changes in population sizes	10			1	5								1			1
Causes and effects of migration	3	1		3	8	2										1

NB Only 18 schools covered this topic

Population - Oakleigh

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Global distribution of population	7			1												
Causes and effects of changes in population sizes	4				2								1			1
Causes and effects of migration	4	1		1								2				

NB Only 8 schools covered this topic

Population - Regional Totals

Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Global distribution of population	19	1	1	3	9	0	0	0	0	0	0	0	1	1	2	1
Causes and effects of changes in population sizes	16	1	1	1	12	0	0	0	0	0	0	0	2	1	0	4
Causes and effects of migration	16	3	1	4	8	2	0	0	0	0	0	2	0	1	0	1

NB Only 38 schools covered this topic

Resources - Bridgewood

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Text books	2											12				
Videos	1					1			1		1	10				
Pictures	1											13				
Aerial photographs	1	1				2		1			1	7				1
Satellite images	7		2	1	2							1				1

Resources - Year Totals Bridgewood	NC	Yr 3	Yr 4	Yr 5	Yr 6
Text books	2	12	12	12	15
Videos	1	13	12	12	14
Pictures	1	13	13	13	16
Aerial photographs	1	12	9	9	13
Satellite images	7	1	3	3	7

Resources - Greendale

Year(s) Covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
Text books	7									1	1	26				
Videos	1				1			1	1			30				1
Pictures												35				
Aerial photographs	3	1	2		1	2	3		1			20				2
Satellite images	25				2							5	1			2

Resources - Year Totals Greendale	**NC**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
Text books	7	28	27	27	28
Videos	1	32	31	32	33
Pictures		35	35	35	35
Aerial photographs	3	27	25	26	23
Satellite images	25	5	6	8	9

Resources - Charwell																
Year(s) Covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
Text books	6		2	2	2							45			1	1
Videos	2			1			3		1	1	1	44	2		2	2
Pictures	1	1				1		1		1		53			1	
Aerial photographs	2	2	1	1	2	2	2	3	4			34	1	1	1	3
Satellite images	28	1	2	4	2	1						10		1	1	8

Resources - Year Totals Charwell	**NC**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
Text books	6	45	48	49	49
Videos	2	50	50	56	50
Pictures	1	57	56	54	56
Aerial photographs	2	47	44	46	44
Satellite images	28	12	15	23	22

Resources - Oakleigh																
Year(s) Covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
Text books	3											15				1
Videos	1								1		1	14				2
Pictures	1											17				1
Aerial photographs	2					1		3				10		1		2
Satellite images	13			1								4				1

Resources - Year Totals Oakleigh	**NC**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
Text books	3	15	15	16	16
Videos	1	16	15	18	17
Pictures	1	17	17	18	18
Aerial photographs	2	14	12	12	16
Satellite images	13	4	4	6	5

Resources - Regional Totals																
Year(s) Covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
Text books	18	0	2	2	2	0	0	0	0	1	1	98	0	0	1	2
Videos	5	0	0	1	1	1	3	1	4	1	3	98	2	0	2	5
Pictures	3	1	0	0	0	1	0	1	0	1	0	118	0	0	1	1
Aerial photographs	8	4	3	1	3	7	5	7	5	0	1	71	1	2	1	8
Satellite images	73	1	4	6	6	1	0	0	0	0	0	20	1	1	1	12

Resources -Regional Year Totals	**NC**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
Text books	18	100	102	104	108
Videos	5	111	108	118	114
Pictures	3	122	121	120	125
Aerial photographs	8	100	90	93	96
Satellite images	73	22	28	40	43

ICT - Bridgewood																
Year(s) covered	**NC**	**3**	**4**	**5**	**6**	**34**	**35**	**36**	**345**	**346**	**356**	**3456**	**45**	**46**	**456**	**56**
CD Roms	1			2			1					6		1	1	1
Word-processing for geography	4										1	7	1			
Spreadsheets	8			2	1											2
Mapping Packages	9					1			1			1			1	
Desktop publishing packages	10			1	1							1				

ICT - Year Totals Bridgewood	NC	Yr 3	Yr 4	Yr 5	Yr 6
CD Roms	1	7	8	11	9
Word-processing for geography	4	8	8	9	8
Spreadsheets	8	0	0	4	3
Mapping Packages	9	3	4	3	2
Desktop publishing packages	10	1	1	2	2

ICT - Greendale Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
CD Roms	7			1	5							19	1			3
Word-processing for geography	17			1	1							14		1		2
Spreadsheets	24				3							4			1	4
Mapping Packages	22		1		2							9				2
Desktop publishing packages	28											5				3

ICT - Year Totals Greendale	NC	Yr 3	Yr 4	Yr 5	Yr 6
CD Roms	7	19	20	24	27
Word-processing for geography	17	14	15	17	18
Spreadsheets	24	4	5	9	12
Mapping Packages	22	9	10	11	13
Desktop publishing packages	28	5	5	8	8

ICT - Charwell Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
CD Roms	9			2	5	1	2	2				25	1	1	5	6
Word-processing for geography	18			1	3							35			1	1
Spreadsheets	32		1	4	5		1	1				5			2	8
Mapping Packages	26	2		1	4	1	2				1	6		1	1	14
Desktop publishing packages	41				4							8				6

ICT - Year Totals Charwell	NC	Yr 3	Yr 4	Yr 5	Yr 6
CD Roms	9	30	33	41	44
Word-processing for geography	18	35	36	38	40
Spreadsheets	32	7	8	20	21
Mapping Packages	26	12	9	25	27
Desktop publishing packages	41	8	8	14	18

ICT - Oakleigh Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
CD Roms	6			1	1		1					6				4
Word-processing for geography	11				1							4		1		2
Spreadsheets	18		1													
Mapping Packages	11		1		1	1						4	1			
Desktop publishing packages	17											1				1

ICT - Year Totals Oakleigh	NC	Yr 3	Yr 4	Yr 5	Yr 6
CD Roms	6	7	6	12	11
Word-processing for geography	11	4	5	6	8
Spreadsheets	18	0	1	0	0
Mapping Packages	11	5	7	5	5
Desktop publishing packages	17	1	1	2	2

ICT - Regional Totals Year(s) covered	NC	3	4	5	6	34	35	36	345	346	356	3456	45	46	456	56
CD Roms	23	0	0	6	11	1	4	2	0	0	0	56	2	2	6	14
Word-processing for geography	50	0	0	2	5	0	0	0	0	0	1	60	1	2	1	5
Spreadsheets	82	0	2	6	9	0	1	1	0	0	0	9	0	0	3	14
Mapping Packages	68	2	2	1	7	3	2	0	1	0	1	20	1	1	2	16
Desktop publishing packages	96	0	0	1	5	0	0	0	0	0	0	15	0	0	0	10

ICT - Regional Year Totals	**NC**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**
CD Roms	23	63	67	88	91
Word-processing for geography	50	61	64	70	74
Spreadsheets	82	11	14	33	36
Mapping Packages	68	29	30	44	47
Desktop publishing packages	96	15	15	26	30

	Separate Subject	Topic Combined with Other Subject	Both Separate Subject and Topic Work Combined
Bridgewood	6	3	5
Greendale	13	1	19
Charwell	32	2	21
Oakleigh	14		5
Regional Total	65	6	50

NB 9 schools did not answer this part of the questionnaire

Time Allocated to Geography per Week (mins)

LEA	30	45	60	75	90	120
Bridgewood	1		6	2	3	2
Greendale	3		17	3	3	6
Charwell	15	6	27	3	3	1
Oakleigh	1		10	1	4	
Regional Total	20	6	60	9	13	9

NB Only 117 schools answered this part of the questionnaire

Time Allocated to Geography per Term (hours)

LEA	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Bridgewood	1					1				6			1			3		1				1			
Greendale				1	2	2		4		11		2	4			3						1			
Charwell		1	1	8	5	1	1	8	1	22		1	3					1	1			1			
Oakleigh				1				5		5			1			2		2							
Regional Total	1	1	1	10	7	4	1	17	1	44	0	3	9	0	0	8	0	4	1	0	0	3	0	0	0

NB Only 117 schools answered this part of the questionnaire

Appendix 9

Secondary Questionnaire Data

Geographical Skills - Bridgewood Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Make plans and maps at variety of scales using symbols and keys		3			1		3	
Understand how to use and give four figure grid references		4			1		2	
Be able to measure direction and distance		4			1		2	
Using a contents and index page of an atlas		3					4	
Be able to use 1:50,000 OS Map		2			1	2	2	
Be able to use 1:25,000 OS Map	1	3		2	1			
Understand how to use and give six figure grid references		2			1	1	3	
How to draw an annotated sketch map from an OS Map	2	1	1	1	2			
How to draw cross-sections from OS Maps	3	2		2				
Use graphs to present geographical information		1					6	
Locate places in an atlas	1	1				1	4	

Geographical Skills - Year Totals Bridgewood	**NC**	**7**	**8**	**9**
Make plans and maps at variety of scales using symbols and keys		7	4	3
Understand how to use and give four figure grid references		7	3	2
Be able to measure direction and distance		7	3	2
Using a contents and index page of an atlas		7	4	4
Be able to use 1:50,000 OS Map		7	3	4
Be able to use 1:25,000 OS Map	1	4	1	2
Understand how to use and give six figure grid references		7	4	4
How to draw an annotated sketch map from an OS Map	2	3	3	1
How to draw cross-sections from OS Maps	3	2	0	2
Use graphs to present geographical information		7	6	6
Locate places in an atlas	1	6	4	5

Geographical Skills - Greendale Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Make plans and maps at variety of scales using symbols and keys		3			1	1	14	
Understand how to use and give four figure grid references		12				2	5	
Be able to measure direction and distance		10					6	
Using a contents and index page of an atlas		10				3	8	
Be able to use 1:50,000 OS Map	1	5	1			1	8	
Be able to use 1:25,000 OS Map	3	3		4			7	
Understand how to use and give six figure grid references		8	1	1			8	
How to draw an annotated sketch map from an OS Map	3	5	2	2		1	6	
How to draw cross-sections from OS Maps	5	4	1	2			3	2
Use graphs to present geographical information	1	3					13	1
Locate places in an atlas		5					13	

Geographical Skills - Year Totals Greendale	**NC**	**7**	**8**	**9**
Make plans and maps at variety of scales using symbols and keys		19	15	15
Understand how to use and give four figure grid references		19	5	7
Be able to measure direction and distance		16	6	6
Using a contents and index page of an atlas		21	8	11
Be able to use 1:50,000 OS Map	1	14	9	9
Be able to use 1:25,000 OS Map	3	10	7	11
Understand how to use and give six figure grid references		16	9	9
How to draw an annotated sketch map from an OS Map	3	12	8	9
How to draw cross-sections from OS Maps	5	7	6	7
Use graphs to present geographical information	1	16	14	14
Locate places in an atlas		18	13	13

Geographical Skills -Charwell

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Make plans and maps at variety of scales using symbols and keys	2	14			1	6	7	
Understand how to use and give four figure grid references		17	1			1	11	
Be able to measure direction and distance	1	13	1		2	4	8	1
Using a contents and index page of an atlas		11				1	15	3
Be able to use 1:50,000 OS Map		13	1	1	2	2	10	1
Be able to use 1:25,000 OS Map	9	7		4		1	8	1
Understand how to use and give six figure grid references	1	12		1	2	3	10	1
How to draw an annotated sketch map from an OS Map	9	3	3	9	1	1	2	2
How to draw cross-sections from OS Maps	15	4		9	1		1	
Use graphs to present geographical information	1	2		1			23	3
Locate places in an atlas		4	2				22	2

Geographical Skills - Year Totals Charwell	**NC**	**7**	**8**	**9**
Make plans and maps at variety of scales using symbols and keys	2	28	8	13
Understand how to use and give four figure grid references		29	12	12
Be able to measure direction and distance	1	27	12	13
Using a contents and index page of an atlas		27	18	19
Be able to use 1:50,000 OS Map		27	14	14
Be able to use 1:25,000 OS Map	9	16	9	14
Understand how to use and give six figure grid references	1	27	13	15
How to draw an annotated sketch map from an OS Map	9	7	8	14
How to draw cross-sections from OS Maps	15	6	2	10
Use graphs to present geographical information	1	25	26	27
Locate places in an atlas		26	26	24

Geographical Skills - Oakleigh

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Make plans and maps at variety of scales using symbols and keys		1					4	1
Understand how to use and give four figure grid references		4					2	
Be able to measure direction and distance		3					3	
Using a contents and index page of an atlas			1		1		4	
Be able to use 1:50,000 OS Map	1	2					3	
Be able to use 1:25,000 OS Map	1			1			3	1
Understand how to use and give six figure grid references		3			1		2	
How to draw an annotated sketch map from an OS Map	3			2			1	
How to draw cross-sections from OS Maps	4		1				1	
Use graphs to present geographical information							6	
Locate places in an atlas					1		5	

Geographical Skills - Year Totals Oakleigh	**NC**	**7**	**8**	**9**
Make plans and maps at variety of scales using symbols and keys		5	5	5
Understand how to use and give four figure grid references		6	2	2
Be able to measure direction and distance		6	3	3
Using a contents and index page of an atlas		5	6	4
Be able to use 1:50,000 OS Map	1	5	3	3
Be able to use 1:25,000 OS Map	1	3	4	5
Understand how to use and give six figure grid references		6	3	2
How to draw an annotated sketch map from an OS Map	3	1	1	3
How to draw cross-sections from OS Maps	4	1	2	1
Use graphs to present geographical information		6	6	6
Locate places in an atlas		6	6	5

Geographical Skills -Regional Totals

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Make plans and maps at variety of scales using symbols and keys	2	21	0	0	3	7	28	1
Understand how to use and give four figure grid references	2	34	0	0	2	8	16	0
Be able to measure direction and distance	0	34	1	0	1	1	22	0
Using a contents and index page of an atlas	1	26	2	0	3	7	24	1
Be able to use 1:50,000 OS Map	2	20	1	0	1	4	28	3
Be able to use 1:25,000 OS Map	5	19	1	8	3	2	20	2
Understand how to use and give six figure grid references	9	20	1	5	2	2	21	1
How to draw an annotated sketch map from an OS Map	9	18	3	6	4	4	17	1
How to draw cross-sections from OS Maps	21	9	5	13	1	1	6	4
Use graphs to present geographical information	16	8	0	9	1	0	26	1
Locate places in an atlas	2	8	0	1	1	1	45	3

Geographical Skills - Regional Year Totals	**NC**	**7**	**8**	**9**
Make plans and maps at variety of scales using symbols and keys	2	59	32	36
Understand how to use and give four figure grid references	0	61	22	23
Be able to measure direction and distance	1	56	24	24
Using a contents and index page of an atlas	0	60	36	38
Be able to use 1:50,000 OS Map	2	53	29	30
Be able to use 1:25,000 OS Map	14	33	21	32
Understand how to use and give six figure grid references	1	56	29	30
How to draw an annotated sketch map from an OS Map	17	23	20	27
How to draw cross-sections from OS Maps	27	16	10	20
Use graphs to present geographical information	2	54	52	53
Locate places in an atlas	1	56	49	47

Places - Bridgewood

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Study of local area of the school		6			1			
Study of locality elsewhere in UK		2	1		1	1	1	1
Study of locality in a developing country		1	4		1	1		
Study of developed country outside UK	1		1	3				2
Study of a developing country		2	5					

Places - Year Totals Bridgewood	**NC**	**7**	**8**	**9**
Study of local area of the school		7	1	0
Study of locality elsewhere in UK		5	4	3
Study of locality in a developing country		3	5	1
Study of developed country outside UK	1	0	3	5
Study of a developing country		2	5	0

Places - Greendale

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Study of local area of the school	2	12			2		2	
Study of locality elsewhere in UK	2	2	1	1	3		6	3
Study of locality in a developing country		1	6	4		1	2	4
Study of developed country outside UK			4	7	1		2	4
Study of a developing country			6	5		1	1	5

Places - Year Totals Greendale	**NC**	**7**	**8**	**9**
Study of local area of the school	2	16	4	2
Study of locality elsewhere in UK	2	11	13	10
Study of locality in a developing country		4	12	11
Study of developed country outside UK		3	11	13
Study of a developing country		2	12	12

Places - Charwell

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Study of local area of the school	3	21			2	3	1	
Study of locality elsewhere in UK	9	3	3	3	1		5	6
Study of locality in a developing country		3	6	8	1		2	10
Study of developed country outside UK		2	8	13		1	2	4
Study of a developing country		2	9	11	1		2	5

Places - Year Totals Charwell	**NC**	**7**	**8**	**9**
Study of local area of the school	3	27	3	4
Study of locality elsewhere in UK	9	9	15	14
Study of locality in a developing country		6	19	20
Study of developed country outside UK		5	14	20
Study of a developing country		5	17	18

Places - Oakleigh

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Study of local area of the school		6						
Study of locality elsewhere in UK		1	1		1	1	2	
Study of locality in a developing country		1	2	1		1		1
Study of developed country outside UK			2	1		1		2
Study of a developing country		1	1	1		1		2

Places - Year Totals Oakleigh	**NC**	**7**	**8**	**9**
Study of local area of the school		6	0	0
Study of locality elsewhere in UK		5	4	3
Study of locality in a developing country		2	3	3
Study of developed country outside UK		1	4	4
Study of a developing country		2	3	4

Places - Regional Totals

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Study of local area of the school	5	45	0	0	5	3	3	0
Study of locality elsewhere in UK	11	8	6	4	6	2	14	10
Study of locality in a developing country	0	6	18	13	2	3	4	15
Study of developed country outside UK	1	2	15	24	1	2	4	12
Study of a developing country	0	5	21	17	1	2	3	12

Places -Regional Year Totals	**NC**	**7**	**8**	**9**
Study of local area of the school	5	56	8	6
Study of locality elsewhere in UK	11	30	36	30
Study of locality in a developing country	0	15	39	35
Study of developed country outside UK	1	9	32	42
Study of a developing country	0	11	37	34

Rivers - Bridgewood

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How rivers erode,transport and deposit material		1	4	1				
Landforms associated with river channels		1	4	2				
The water cycle		1	4	1				1
The drainage basin system	1		4	2				
Causes and effects of river floods			3	3				1

Rivers - Year Totals Bridgewood	**NC**	**7**	**8**	**9**
How rivers erode,transport and deposit material		1	4	1
Landforms associated with river channels		1	4	2
The water cycle		1	5	2
The drainage basin system	1	0	4	2
Causes and effects of river floods		0	4	4

Rivers - Greendale

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How rivers erode, transport and deposit material	3	4	8	2		1		
Landforms associated with river channels	3	4	8	2		1		
The water cycle	1	7	6	2	2			
The drainage basin system	3	4	7	2	1	1		
Causes and effects of river floods	2	5	7	3			1	

Rivers - Year Totals Greendale	**NC**	**7**	**8**	**9**
How rivers erode, transport and deposit material	3	5	8	3
Landforms associated with river channels	3	5	8	3
The water cycle	1	9	8	2
The drainage basin system	3	6	8	3
Causes and effects of river floods	2	6	8	4

Rivers - Charwell

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How rivers erode, transport and deposit material	3	3	17	4	1	1		1
Landforms associated with river channels	3	3	18	5				1
The water cycle	1	9	10	1	7	1	1	
The drainage basin system	2	6	17	4		1		
Causes and effects of river floods	3	5	15	4	2	1		

Rivers - Year Totals Charwell	**NC**	**7**	**8**	**9**
How rivers erode, transport and deposit material	3	5	19	6
Landforms associated with river channels	3	3	18	6
The water cycle	1	18	19	3
The drainage basin system	2	7	18	5
Causes and effects of river floods	3	8	18	5

Rivers - Oakleigh

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How rivers erode, transport and deposit material		1	4	1				
Landforms associated with river channels		1	4	1				
The water cycle		2	2		1			1
The drainage basin system		2	3					1
Causes and effects of river floods		2	1	2				1

Rivers - Year Totals Oakleigh	**NC**	**7**	**8**	**9**
How rivers erode, transport and deposit material		1	4	1
Landforms associated with river channels		1	4	1
The water cycle		3	4	1
The drainage basin system		2	4	1
Causes and effects of river floods		2	2	3

Rivers -Regional Totals

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How rivers erode, transport and deposit material	6	9	33	8	1	2	0	1
Landforms associated with river channels	6	9	34	10	0	1	0	1
The water cycle	2	19	22	4	10	1	1	2
The drainage basin system	6	12	31	8	1	2	0	1
Causes and effects of river floods	5	12	26	12	2	1	1	2

Rivers - Regional Year Totals	**NC**	**7**	**8**	**9**
How rivers erode, transport and deposit material	6	12	35	11
Landforms associated with river channels	6	10	34	12
The water cycle	2	31	36	8
The drainage basin system	6	15	34	11
Causes and effects of river floods	5	16	32	16

Weather -Bridgewood

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How site conditions influence weather	1	3	1	1			1	
Seasonal weather patterns	1	3	1	1		3	1	
How weather and climate differ		3	3	1				

Weather - Bridgewood Year Totals	**NC**	**7**	**8**	**9**
How site conditions influence weather	1	4	2	2
Seasonal weather patterns	1	7	2	5
How weather and climate differ		3	3	1

Weather -Greendale

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How site conditions influence weather	1	7	6	1	1	2		
Seasonal weather patterns	2	3	7	3	1	2		
How weather and climate differ	1	6	7	2	1	1		

Weather - Greendale Year Totals	**NC**	**7**	**8**	**9**
How site conditions influence weather	1	10	7	3
Seasonal weather patterns	2	6	8	5
How weather and climate differ	1	8	8	3

Weather -Charwell

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How site conditions influence weather	1	17	6	3	2	1		
Seasonal weather patterns	4	10	7	6		2		1
How weather and climate differ		11	7	3	3	4		2

Weather – Charwell Year Totals	**NC**	**7**	**8**	**9**
How site conditions influence weather	1	20	8	4
Seasonal weather patterns	4	12	8	9
How weather and climate differ		18	12	9

Weather -Oakleigh

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How site conditions influence weather		3	2				1	
Seasonal weather patterns		1	1	1		3		
How weather and climate differ		4	1	1				

Weather - Oakleigh Year Totals	**NC**	**7**	**8**	**9**
How site conditions influence weather		4	3	1
Seasonal weather patterns		4	1	4
How weather and climate differ		4	1	1

Weather - Regional Totals

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How site conditions influence weather	3	30	15	5	3	3	2	0
Seasonal weather patterns	7	17	16	11	1	10	1	1
How weather and climate differ	1	24	18	7	4	5	0	2

Weather - Regional Year Totals	**NC**	**7**	**8**	**9**
How site conditions influence weather	3	38	20	10
Seasonal weather patterns	7	29	19	23
How weather and climate differ	1	33	24	14

Tectonic Processes - Bridgewood

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Processes associated with movement of tectonic plates			1	5		1		
The causes and effects of earthquakes			1	6				
The causes and effects of volcanic eruptions			1	5	1			

Tectonic Processes - Year Totals Bridgewood	**NC**		**7**	**8**	**9**				
Processes associated with movement of tectonic plates			1	1	6				
The causes and effects of earthquakes				1	6				
The causes and effects of volcanic eruptions			1	2	5				
Tectonic Processes - Greendale									
Year(s) Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Processes associated with movement of tectonic plates			1	3	14				
The causes and effects of earthquakes			1	3	14				
The causes and effects of volcanic eruptions		2	1	3	12				
Tectonic Processes - Year Totals Greendale	**NC**		**7**	**8**	**9**				
Processes associated with movement of tectonic plates			1	3	14				
The causes and effects of earthquakes			1	3	14				
The causes and effects of volcanic eruptions		2	1	3	12				
Tectonic Processes - Charwell									
Year(s) Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Processes associated with movement of tectonic plates		2	3	8	16				1
The causes and effects of earthquakes		2	3	10	14				1
The causes and effects of volcanic eruptions			4	10	15				1
Tectonic Processes - Year Totals Charwell	**NC**		**7**	**8**	**9**				
Processes associated with movement of tectonic plates		2	3	9	17				
The causes and effects of earthquakes		2	3	11	15				
The causes and effects of volcanic eruptions			4	11	16				
Tectonic Processes - Oakleigh									
Year(s) Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Processes associated with movement of tectonic plates				2	4				
The causes and effects of earthquakes		1		2	3				
The causes and effects of volcanic eruptions				2	4				
Tectonic Processes - Year Totals Oakleigh	**NC**		**7**	**8**	**9**				
Processes associated with movement of tectonic plates				2	4				
The causes and effects of earthquakes		1		2	3				
The causes and effects of volcanic eruptions				2	4				
Tectonic Processes - Regional Totals									
Year(s) Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Processes associated with movement of tectonic plates		2	4	14	39	0	1	0	1
The causes and effects of earthquakes		3	4	16	37	0	0	0	1
The causes and effects of volcanic eruptions		2	5	16	36	1	0	0	1
Tectonic Processes - Regional Year Totals	**NC**		**7**	**8**	**9**				
Processes associated with movement of tectonic plates		2	5	15	41				
The causes and effects of earthquakes		3	4	17	38				
The causes and effects of volcanic eruptions		2	6	18	37				
Coasts -Bridgewood									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
The formation of coastal landforms		5	1		1				
Causes and effects of cliff collapse or coastal flooding		5	1		1				
Coasts - Year Totals Bridgewood	**NC**		**7**	**8**	**9**				
The formation of coastal landforms		5	1		1				
Causes and effects of cliff collapse or coastal flooding		5	1		1				
Coasts -Greendale									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
The formation of coastal landforms		6	3	7	2				
Causes and effects of cliff collapse or coastal flooding		9	3	5	1				

Coasts - Year Totals Greendale	**NC**		**7**	**8**	**9**				
The formation of coastal landforms		6	3	7	2				
Causes and effects of cliff collapse or coastal flooding		9	3	5	1				

Coasts -Charwell									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
The formation of coastal landforms		17	1	5	7				
Causes and effects of cliff collapse or coastal flooding		19		5	6				

Coasts - Year Totals Charwell	**NC**		**7**	**8**	**9**
The formation of coastal landforms		17	1	5	7
Causes and effects of cliff collapse or coastal flooding		19		5	6

Coasts -Oakleigh									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
The formation of coastal landforms		2		4					
Causes and effects of cliff collapse or coastal flooding		3		3					

Coasts - Year Totals Oakleigh	**NC**		**7**	**8**	**9**
The formation of coastal landforms		2		4	
Causes and effects of cliff collapse or coastal flooding		3		3	

Coasts -Regional Totals									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
The formation of coastal landforms		30	5	16	10	0	0	0	0
Causes and effects of cliff collapse or coastal flooding		36	4	13	8	0	0	0	0

Coasts - Regional Year Totals	**NC**		**7**	**8**	**9**
The formation of coastal landforms		30	5	16	10
Causes and effects of cliff collapse or coastal flooding		36	4	13	8

Ecosystems - Bridgewood Years Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
The characteristics and distribution of one type of vegetation			1	3	2	1			

Ecosystems - Greendale Years Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
The characteristics and distribution of one type of vegetation		3		7	7				1

Ecosystems - Charwell Years Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
The characteristics and distribution of one type of vegetation		1	4	12	11	1			1

Ecosystems - Oakleigh Years Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
The characteristics and distribution of one type of vegetation			1	3	1				1

Ecosystems - Regional Totals Years Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
The characteristics and distribution of one type of vegetation		4	6	25	21	2	0	0	3

Settlements - Bridgewood									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Settlements vary in size			2	3				1	
Settlements have different functions			2	3				1	
Conflicts over use of land in settlements			1	4				1	
Reasons for location and growth of settlements			2	3				1	
How types and variety of goods and services vary in settlements		1	1	2			1	1	
Different types and patterns of urban land use				4			1	1	

Settlements - Year Totals Bridgewood	**NC**		**7**	**8**	**9**
Settlements vary in size			3	4	1
Settlements have different functions			3	4	1
Conflicts over use of land in settlements			2	5	1
Reasons for location and growth of settlements			3	4	1
How types and variety of goods and services vary in settlements		1	3	3	2
Different types and patterns of urban land use			2	5	2

Settlements - Greendale

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Settlements vary in size		16	1				1	
Settlements have different functions		15	1		1		1	
Conflicts over use of land in settlements	1	10	1	1	1	2	2	
Reasons for location and growth of settlements	1	16			1			
How types and variety of goods and services vary in settlements	3	13	1				1	
Different types and patterns of urban land use	1	11		1	2	3		

Settlements - Year Totals Greendale	**NC**	**7**	**8**	**9**
Settlements vary in size		17	2	1
Settlements have different functions		17	3	1
Conflicts over use of land in settlements	1	15	4	5
Reasons for location and growth of settlements	1	17	1	0
How types and variety of goods and services vary in settlements	3	14	2	1
Different types and patterns of urban land use	1	16	2	4

Settlements - Charwell

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Settlements vary in size		17	5	3	1	2	2	
Settlements have different functions		18	5	3	1	3		
Conflicts over use of land in settlements	2	10	6	5	1	4		2
Reasons for location and growth of settlements	1	17	5	3	1	1	2	
How types and variety of goods and services vary in settlements	3	14	6	5	2			
Different types and patterns of urban land use	3	12	4	8	2	1		

Settlements - Year Totals Charwell	**NC**	**7**	**8**	**9**
Settlements vary in size		22	8	7
Settlements have different functions		22	6	6
Conflicts over use of land in settlements	2	15	9	11
Reasons for location and growth of settlements	1	21	8	6
How types and variety of goods and services vary in settlements	3	16	8	5
Different types and patterns of urban land use	3	15	6	9

Settlements - Oakleigh

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Settlements vary in size		3	1		1		1	
Settlements have different functions		3	2				1	
Conflicts over use of land in settlements	1	1	2			1	1	
Reasons for location and growth of settlements		3	2				1	
How types and variety of goods and services vary in settlements	1	2	2				1	
Different types and patterns of urban land use		1	2		1		1	

Settlements - Year Totals Oakleigh	**NC**	**7**	**8**	**9**
Settlements vary in size		5	3	1
Settlements have different functions		4	3	1
Conflicts over use of land in settlements	1	3	3	2
Reasons for location and growth of settlements		4	3	1
How types and variety of goods and services vary in settlements	1	3	3	1
Different types and patterns of urban land use		3	4	1

Settlements - Regional Totals

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Settlements vary in size	0	38	10	3	2	2	5	0
Settlements have different functions	0	38	11	3	2	3	3	0
Conflicts over use of land in settlements	4	22	13	6	2	7	4	2
Reasons for location and growth of settlements	2	38	10	3	2	1	4	0
How types and variety of goods and services vary in settlements	8	30	11	5	2	1	3	0
Different types and patterns of urban land use	4	24	10	9	5	5	2	0

Settlements - Regional Year Totals	**NC**	**7**	**8**	**9**
Settlements vary in size	0	47	17	10
Settlements have different functions	0	46	16	9
Conflicts over use of land in settlements	4	35	21	19
Reasons for location and growth of settlements	2	45	16	8
How types and variety of goods and services vary in settlements	8	36	16	9
Different types and patterns of urban land use	4	36	17	16

Environment - Bridgewood								
Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How people affect the environment				1	1	2	1	2
How people manage the environment			1	1	1	2	1	1
Unintended effects of managing the environment				2	2	2	1	
Why areas are of great scenic attraction			1	3	1	1	1	
Conflicts arising from managing the environment	1			2	1	2	1	
Provision of fresh water supply	1		2	1	1	1		1
Causes,effects, and prevention of water pollution	1		4	2				
Provision of energy supply	1		1	5				
Environmental effects of different energy sources		1	1	4		1		

Environment - Year Totals Bridgewood	**NC**	**7**	**8**	**9**
How people affect the environment		4	4	6
How people manage the environment		4	4	5
Unintended effects of managing the environment		5	3	5
Why areas are of great scenic attraction		3	3	5
Conflicts arising from managing the environment	1	4	2	5
Provision of fresh water supply	1	2	4	3
Causes,effects, and prevention of water pollution	1	0	4	2
Provision of energy supply	1	0	1	5
Environmental effects of different energy sources		2	1	5

Environment - Greendale								
Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How people affect the environment	1		3	3	1	2	6	2
How people manage the environment	1		2	3	3	2	2	5
Unintended effects of managing the environment	5		3	2	1	1	1	5
Why areas are of great scenic attraction	2	1	1	9	1		2	2
Conflicts arising from managing the environment		2	2	8	1	1	1	3
Provision of fresh water supply	2	7	7	2				
Causes,effects, and prevention of water pollution	2	3	7	4	1		1	
Provision of energy supply	5		5	7				1
Environmental effects of different energy sources	4		6	7				1

Environment - Year Totals Greendale	**NC**	**7**	**8**	**9**
How people affect the environment	1	9	12	13
How people manage the environment	1	7	12	12
Unintended effects of managing the environment	5	3	10	9
Why areas are of great scenic attraction	2	4	6	13
Conflicts arising from managing the environment		5	7	13
Provision of fresh water supply	2	7	7	2
Causes,effects, and prevention of water pollution	2	5	9	5
Provision of energy supply	5	0	6	8
Environmental effects of different energy sources	4	0	7	8

Environment - Charwell

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How people affect the environment	1		2	10	2	3	8	4
How people manage the environment			4	11	1	2	5	7
Unintended effects of managing the environment	6		5	9		3	1	6
Why areas are of great scenic attraction	3	2	5	13	1	1	1	4
Conflicts arising from managing the environment	1	2	5	13	2	2		5
Provision of fresh water supply	5	5	11	8	1			
Causes,effects, and prevention of water pollution	6	6	9	9				
Provision of energy supply	6	3	10	9	1			1
Environmental effects of different energy sources	7	2	8	11	1			1

Environment - Year Totals Charwell	**NC**	**7**	**8**	**9**
How people affect the environment	1	13	16	25
How people manage the environment		8	17	25
Unintended effects of managing the environment	6	4	12	19
Why areas are of great scenic attraction	3	5	11	19
Conflicts arising from managing the environment	1	6	12	20
Provision of fresh water supply	5	6	12	8
Causes,effects, and prevention of water pollution	6	6	9	9
Provision of energy supply	6	4	12	10
Environmental effects of different energy sources	7	3	10	12

Environment - Oakleigh

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How people affect the environment			1	1			2	2
How people manage the environment			1	2			2	1
Unintended effects of managing the environment			1	2		1	1	1
Why areas are of great scenic attraction			2	2		1		1
Conflicts arising from managing the environment			1	2		1	1	1
Provision of fresh water supply	1	1	2	1			1	
Causes,effects, and prevention of water pollution	1	1	2	1				1
Provision of energy supply	1		1	3				1
Environmental effects of different energy sources	1		1	3				1

Environment - Year Totals Oakleigh	**NC**	**7**	**8**	**9**
How people affect the environment		2	5	5
How people manage the environment		2	4	5
Unintended effects of managing the environment		2	3	5
Why areas are of great scenic attraction		1	3	4
Conflicts arising from managing the environment		2	3	5
Provision of fresh water supply	1	2	3	2
Causes,effects, and prevention of water pollution	1	1	3	2
Provision of energy supply	1	0	2	4
Environmental effects of different energy sources	1	0	2	4

Environment - Regional Totals

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
How people affect the environment	2	0	6	15	4	7	17	10
How people manage the environment	1	0	8	17	5	6	10	14
Unintended effects of managing the environment	11	0	9	15	3	7	4	12
Why areas are of great scenic attraction	5	3	9	27	3	3	4	7
Conflicts arising from managing the environment	2	4	8	25	4	6	3	9
Provision of fresh water supply	9	13	22	12	2	1	1	1
Causes,effects, and prevention of water pollution	10	10	22	16	1	0	1	1
Provision of energy supply	13	3	17	24	1	0	0	3
Environmental effects of different energy sources	12	3	16	25	1	1	0	3

Environment - Regional Year Totals	**NC**	**7**	**8**	**9**
How people affect the environment	2	28	37	49
How people manage the environment	1	21	37	47
Unintended effects of managing the environment	11	14	28	38
Why areas are of great scenic attraction	5	13	23	41
Conflicts arising from managing the environment	2	17	24	43
Provision of fresh water supply	9	17	26	15
Causes,effects, and prevention of water pollution	10	12	25	18
Provision of energy supply	13	4	21	27
Environmental effects of different energy sources	12	5	20	29

Economic Activity - Bridgewood								
Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Difference between primary,secondary and tertiary		1	1	3		1	1	
Study one form of economic activity		2	1	4				
The effects of changing distribution of this economic activity		2	1	4				

Economic Activity - Bridgewood Years Covered	**NC**	**7**	**8**	**9**
Difference between primary,secondary and tertiary		3	2	5
Study one form of economic activity		2	1	4
The effects of changing distribution of this economic activity		2	1	4

Economic Activity - Greendale								
Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Difference between primary,secondary and tertiary		1	5	3	2	1	4	2
Study one form of economic activity		1	6	2	3	2	3	1
The effects of changing distribution of this economic activity	4	1	6	3		1	1	2

Economic Activity - Greendale Years Covered	**NC**	**7**	**8**	**9**
Difference between primary,secondary and tertiary		8	13	10
Study one form of economic activity		9	13	8
The effects of changing distribution of this economic activity	4	3	9	7

Economic Activity - Charwell								
Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Difference between primary,secondary and tertiary		5	10	8	3	2	2	
Study one form of economic activity		9	9	4	2	2	4	
The effects of changing distribution of this economic activity	4	5	8	5	2	2	2	2

Economic Activity - Charwell Years Covered	**NC**	**7**	**8**	**9**
Difference between primary,secondary and tertiary		14	15	12
Study one form of economic activity		17	15	10
The effects of changing distribution of this economic activity	4	11	14	11

Economic Activity - Oakleigh								
Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Difference between primary,secondary and tertiary		1	3			1	1	
Study one form of economic activity		2	2				2	
The effects of changing distribution of this economic activity		2	3				1	

Economic Activity - Oakleigh Years Covered	**NC**	**7**	**8**	**9**
Difference between primary,secondary and tertiary		3	4	2
Study one form of economic activity		4	4	2
The effects of changing distribution of this economic activity		3	4	1

Economic Activity - Regional Totals								
Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Difference between primary,secondary and tertiary	0	8	19	14	5	5	8	2
Study one form of economic activity	0	14	18	10	5	4	9	1
The effects of changing distribution of this economic activity	8	10	18	12	2	3	4	4

Economic Activity - Regional Years Covered	**NC**		**7**	**8**	**9**				
Difference between primary,secondary and tertiary		0	28	34	29				
Study one form of economic activity		0	32	33	24				
The effects of changing distribution of this economic activity		8	19	28	23				
Development - Bridgewood									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Identify differences in development between countries				3			2		2
How differences in development affect the quality of life				4	1		1		1
Development - Bridgewood Year Totals	**NC**		**7**	**8**	**9**				
Identify differences in development between countries			2	5	4				
How differences in development affect the quality of life			1	5	3				
Development - Greendale									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Identify differences in development between countries				2	6	1	1	1	7
How differences in development affect the quality of life				2	6			2	8
Development - Greendale Year Totals	**NC**		**7**	**8**	**9**				
Identify differences in development between countries			3	11	15				
How differences in development affect the quality of life			2	12	16				
Development - Charwell									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Identify differences in development between countries			1	3	14		2	2	8
How differences in development affect the quality of life			1	3	16		1	1	8
Development - Charwell Year Totals	**NC**		**7**	**8**	**9**				
Identify differences in development between countries			5	13	26				
How differences in development affect the quality of life			3	12	26				
Development - Oakleigh									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Identify differences in development between countries				3	1				1
How differences in development affect the quality of life				1	2		1		2
Development - Oakleigh Year Totals	**NC**		**7**	**8**	**9**				
Identify differences in development between countries				4	2				
How differences in development affect the quality of life			1	3	5				
Development - Regional Totals									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Identify differences in development between countries		0	1	11	21	1	5	3	18
How differences in development affect the quality of life		0	1	10	25	0	3	3	19
Development - Regional Year Totals	**NC**		**7**	**8**	**9**				
Identify differences in development between countries		0	10	33	47				
How differences in development affect the quality of life		0	7	32	50				
Population - Bridgewood									
Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Global distribution of population				2	5				
Causes and effects of changes in population sizes				2	5				
Causes and effects of migration		1		1	4				1
Population - Bridgewood Year Totals	**NC**		**7**	**8**	**9**				
Global distribution of population				2	5				
Causes and effects of changes in population sizes				2	5				
Causes and effects of migration		1		2	5				

Population - Greendale

Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Global distribution of population		1	2	9	5				1
Causes and effects of changes in population sizes		1	1	6	5	1		1	3
Causes and effects of migration			1	7	5	2			3

Population - Greendale Year Totals	**NC**		**7**	**8**	**9**
Global distribution of population		1	2	10	6
Causes and effects of changes in population sizes		1	3	11	9
Causes and effects of migration			3	12	8

Population - Charwell

Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Global distribution of population				10	20				
Causes and effects of changes in population sizes		1		9	19				1
Causes and effects of migration		1		8	19				2

Population - Charwell Year Totals	**NC**		**7**	**8**	**9**
Global distribution of population				10	20
Causes and effects of changes in population sizes		1		10	20
Causes and effects of migration		1		10	21

Population - Oakleigh

Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Global distribution of population			1	1	4				
Causes and effects of changes in population sizes				1	4		1		
Causes and effects of migration				1	4		1		

Population - Oakleigh Year Totals	**NC**		**7**	**8**	**9**
Global distribution of population			1	1	4
Causes and effects of changes in population sizes			1	1	5
Causes and effects of migration			1	1	5

Population - Regional Totals

Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Global distribution of population		1	3	22	34	0	0	0	1
Causes and effects of changes in population sizes		2	1	18	33	1	1	1	4
Causes and effects of migration		2	1	17	32	2	1	0	6

Population - Regional Year Totals	**NC**		**7**	**8**	**9**
Global distribution of population		1	3	23	35
Causes and effects of changes in population sizes		2	4	24	39
Causes and effects of migration		2	4	25	39

ICT - Bridgewood

Year(s) covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
CD Roms		2	1					2	2
Word-processing for geography		2					1	4	
Spreadsheets		2			1				4
Mapping Packages		6	1						
Desktop publishing packages		5						1	1

ICT - Year Totals Bridgewood	**NC**		**7**	**8**	**9**
CD Roms		2	3	4	4
Word-processing for geography		2	5	4	5
Spreadsheets		2		4	5
Mapping Packages		6	1		
Desktop publishing packages		5	1	2	2

ICT - Greendale

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
CD Roms	2	1	1	1			9	4
Word-processing for geography		1	1	3		1	12	
Spreadsheets	8		4	2			4	
Mapping Packages	14	3				1		
Desktop publishing packages	7			4			5	2

ICT - Year Totals Greendale	**NC**	**7**	**8**	**9**
CD Roms	2	10	14	14
Word-processing for geography		14	13	16
Spreadsheets	8	4	8	6
Mapping Packages	14	4		1
Desktop publishing packages	7	5	7	11

ICT - Charwell

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
CD Roms	4			6	1		18	1
Word-processing for geography	5			2		2	19	2
Spreadsheets	11	1	1	6	1	1	6	3
Mapping Packages	16	4	3	2			5	
Desktop publishing packages	20	1		2			7	

ICT - Year Totals Charwell	**NC**	**7**	**8**	**9**
CD Roms	4	19	20	25
Word-processing for geography	5	21	21	25
Spreadsheets	11	9	11	16
Mapping Packages	16	9	8	7
Desktop publishing packages	20	8	7	9

ICT - Oakleigh

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
CD Roms	1						3	2
Word-processing for geography	2						3	1
Spreadsheets	2			1			3	
Mapping Packages	4	2						
Desktop publishing packages	3			1			1	1

ICT - Year Totals Oakleigh	**NC**	**7**	**8**	**9**
CD Roms	1	3	5	5
Word-processing for geography	2	3	4	4
Spreadsheets	2	3	3	4
Mapping Packages	4	2		
Desktop publishing packages	3	1	2	3

ICT - Regional Year Totals

Year(s) covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
CD Roms	9	2	1	7	1	0	32	9
Word-processing for geography	9	1	1	5	0	4	38	3
Spreadsheets	23	1	5	10	1	1	13	7
Mapping Packages	40	10	3	2	0	1	5	0
Desktop publishing packages	35	1	0	7	0	0	14	4

ICT - Year Totals Regional	**NC**	**7**	**8**	**9**
CD Roms	9	35	43	48
Word-processing for geography	9	43	42	50
Spreadsheets	23	16	26	31
Mapping Packages	40	16	8	8
Desktop publishing packages	35	15	18	25

Resources - Bridgewood									
Year(s) Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Text books								6	1
Videos								6	1
Pictures						1		4	2
Aerial photographs			5	1				1	
Satellite images			1	1			1	3	1

Resources - Year Totals Bridgewood	**NC**	**7**	**8**	**9**
Text books		6	7	7
Videos		6	7	7
Pictures		5	7	6
Aerial photographs		6	2	1
Satellite images		5	5	5

Resources - Greendale									
Year(s) Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Text books								18	
Videos								17	1
Pictures		1						16	1
Aerial photographs			1	1	1	2		10	3
Satellite images		1		3	3	1	2	5	3

Resources - Year Totals Greendale	**NC**	**7**	**8**	**9**
Text books		18	18	18
Videos		17	18	18
Pictures	1	16	17	17
Aerial photographs		13	16	14
Satellite images	1	8	12	13

Resources - Charwell									
Year(s) Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Text books								30	
Videos								29	1
Pictures		1		1				28	
Aerial photographs		4	6	2	2	2	1	9	4
Satellite images		5	2	3	9		1	6	4

Resources - Year Totals Charwell	**NC**	**7**	**8**	**9**
Text books		30	30	30
Videos		29	30	30
Pictures	1	28	29	28
Aerial photographs	4	18	17	16
Satellite images	5	9	13	20

Resources - Oakleigh									
Year(s) Covered	**NC**		**7**	**8**	**9**	**78**	**79**	**789**	**89**
Text books								6	
Videos								6	
Pictures		1						5	
Aerial photographs			3					3	
Satellite images			2		2			1	1

Resources - Year Totals Oakleigh	**NC**	**7**	**8**	**9**
Text books		6	6	6
Videos		6	6	6
Pictures	1	5	5	5
Aerial photographs		6	3	3
Satellite images		3	2	4

Resources - Regional Totals

Year(s) Covered	**NC**	**7**	**8**	**9**	**78**	**79**	**789**	**89**
Text books	0	0	0	0	0	0	60	1
Videos	0	0	0	0	0	0	58	3
Pictures	3	0	1	0	1	0	53	3
Aerial photographs	4	15	4	3	4	1	23	7
Satellite images	6	5	7	14	1	4	15	9

Resources - Year Totals Regional	**NC**	**7**	**8**	**9**
Text books	0	60	61	61
Videos	0	58	61	61
Pictures	3	54	58	56
Aerial photographs	4	43	38	34
Satellite images	6	25	32	42

Time Allocated to Geography per Week

	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145
Bridgewood				1			2		1				2					
Greendaleshire			1				5		4	2	1		4					1
Charwell	3	1	6				5		2	2	3	1	8					
Oakleigh							2			1			2				1	
Regional Total	3	1	7	1	0	0	14	0	7	5	4	1	16	0	0	0	1	1

NB 1 Charwell school has 55 minutes in year 8, another 60 minutes in year 8 and another 60 minutes in year 7, all three rising to 90 minutes in other KS3 years.

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